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United States. Dept. of
Health, Education, and

Annual report of the U.S.
Department of Health,

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1957

U. S. DEPARTMENT OF

HEALTH, EDUCATION, AND WELFARE

Office of education

annual
report

DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

MAY 22 1958

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Letter of Transmittal

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,

Washington, D. C., December 1, 1957.

DEAR MR. PRESIDENT: I have the honor to submit herewith the annual report of the Department of Health, Education, and Welfare for the fiscal year ending June 30, 1957.

Respectfully,

A handwritten signature in dark ink, reading "M. B. Tolson". The signature is fluid and cursive, with the first letters of each name being capitalized and prominent.

Secretary.

THE PRESIDENT,
THE WHITE HOUSE,
Washington, D. C.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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Contents

| | <i>Page</i> |
|--|-------------|
| <i>The Secretary's Report</i> | 1 |
| <i>Social Security Administration</i> | 17 |
| <i>Public Health Service</i> | 83 |
| <i>Office of Education</i> | |
| <i>Food and Drug Administration</i> | 193 |
| <i>Office of Vocational Rehabilitation</i> | |
| <i>Saint Elizabeths Hospital</i> | |
| <i>American Printing House for the Blind</i> | 247 |
| <i>Gallaudet College</i> | 249 |
| <i>Howard University</i> | 251 |

{ A detailed listing of the contents of this report, by
 { topic headings, will be found on pages 255-2630 }

The Secretary's Report

THE CONCERN of the Federal Government for the human problems of its citizens runs deep in the mainstream of American history.

The Public Health Service began in 1798 to care for sick and injured merchant seamen. Today it is the principal health agency of the Federal Government and the largest sponsor of medical research in the United States. The Food and Drug Administration, originating in 1906 as a bureau of the Department of Agriculture, now has heavy responsibilities for the safety and purity of more than \$62 billion worth of foods, drugs, and cosmetics.

The Office of Education, established in 1867, has grown with the increasing importance of education in the United States. Today it conducts research, provides educational information services, and administers grants to improve the education of the American people. Social security, a product of the depression of the 1930's, today is a key bulwark to a strong national economy. Under it: old-age, survivors, and disability insurance provides a base of protection for most Americans; public assistance provides financial help for millions of needy persons; and the Children's Bureau is a focus of national concern for the health and welfare of children. The Office of Vocational Rehabilitation was created in 1920 and has steadily expanded its services to the disabled as new knowledge in its field has become available.

When these agencies were brought together, and then in 1953 elevated to a Department of the President's Cabinet, their well-established traditions were carried forward to provide better service to all Americans.

This Government's concern for human problems has its roots in America's belief in the worth of the individual. This dedication, which was expressed by the Founding Fathers, has grown stronger

with time as our way of life has successfully withstood attack from without and from within. It has taken on added meaning in recent years as the physical and social sciences have developed new means and methods for advancing human welfare. Today it is generally recognized that contributions to the betterment of the individual measurably increase the strength of the whole Nation.

When people are healthy they produce more and buy more. Educated people increase not only their own earning potentials but they add to the cultural and material wealth of their communities. Workers whose retirement and dependents are protected by social security feel more secure in their work and are less likely to need tax-supported relief.

All the activities of this Department in the past year were directed toward improving the health, education, and economic security of the American people. These remain our primary objectives.

Health

Americans are among the healthiest people in the world. A child born in the United States today can reasonably expect to live 21 years longer than if he had been born at the turn of the century.

This year the Nation's population grew by more than 2.6 million people—an increase of about 16 people out of each 1,000—one of the highest rates of population increase in recent American history.

This came about largely because the health sciences devised better ways both to prevent and to cure illnesses, and also because people knew more about keeping themselves well.

While the Nation's birthrate has remained high since the end of World War II, the rate of deaths has been declining. For instance, from 1946 to 1956 maternal death rates fell 76 percent and infant death rates dropped 23 percent. Sharp declines have taken place in the mortality rate for several diseases, most remarkable being that of tuberculosis, which dropped from about 36 deaths per 100,000 population in 1946 to about 8 in 1956. This year even polio, that dread destroyer of children, was receding dramatically in the wake of a frontal assault with the vaccine developed by Dr. Jonas E. Salk.

But there were new health problems to be met and many old ones whose solution seemed long overdue. The chronic diseases accounted for an increasingly larger proportion of all ailments. The two major killers of all persons were heart disease and cancer. They were particularly virulent among the aged, causing four-fifths of all deaths in persons 65 years of age or older.

RESEARCH

Research is the essential base for medical and public health progress. Both direct research by the Public Health Service and the sponsorship of research outside the Government have grown rapidly in recent years.

In the past 10 years, research programs of the National Institutes of Health—the principal research arm of the Public Health Service—increased from \$8 million to \$183 million this year. More than two-thirds of this money went to sponsor research by scientists working in schools, hospitals, and other institutions outside the Federal Government.

As research work expanded, it became clear that a balanced and effective program would require more emphasis on the training of personnel needed to conduct research. NIH support for the training of promising scientists has been increased from \$2 million in 1953 to more than \$5 million this year.

More recently, when inadequate facilities threatened to interfere with the medical research effort, a new program was launched to provide \$90 million over 3 years for matching aid to build and equip health research facilities. A total of 109 grants to nonprofit institutions in 31 States was awarded under the first \$30 million appropriation by the Congress. Before the close of the year, Congress appropriated another \$30 million for this purpose.

Some of the discoveries at the National Institutes of Health in the past year illustrate the extent to which it is developing new knowledge.

Researchers reported several developments in the treatment of cancer with drugs. A rare type of malignant solid tumor apparently was entirely suppressed by treatment with a drug, methotrexate, a chemical originally developed for the treatment of leukemia. Secondary cancers which had spread from the original also were healed. Other experiments with reserpine, known for its benefits as a tranquilizer, suggested that it may also have application in treatment of leukemia. The Cancer Chemotherapy National Service Center, in its second year as headquarters for the nationwide cooperative research program, arranged for the testing of more than 24,000 compounds for their possible use as anticancer agents.

Long research culminated in the development of an experimental vaccine against a number of respiratory disorders which cause widespread hardship among large numbers of Americans. Researchers on the treatment of burns discovered that an injection of human gamma globulin, a blood derivative, would reduce the possibility of death from infections which often follow severe burns.

The Nation benefits from all research which helps to advance the body of scientific knowledge. Identifiable achievements in science invariably come as the combination of many efforts. Since one discovery builds upon the foundation of another, the earlier work is just as important to the final result as those which eventually are recognized as helping to save lives and advance human welfare.

MEDICAL SERVICES

The Public Health Service provides medical services for merchant seamen, American Indians, and certain other designated groups, and it assists other Federal agencies in providing needed medical care.

It also administers the local-State-Federal program of hospital construction, an example of how Federal assistance has encouraged greater initiative and enterprise by individuals, private agencies, local and State governments.

When the Hospital and Medical Facilities Construction program was started in 1946, there were about 10 million people who lived in areas without acceptable hospitals. That number has been cut by more than two-thirds in the past 11 years as more than 3,000 medical and hospital facilities have been built under the program—including 1,100 completely new general hospitals.

In 1954, the President requested and Congress enacted legislation expanding the program to include Federal aid for four new categories: nursing homes, chronic-disease hospitals, diagnostic and treatment centers, and rehabilitation facilities. Since then 344 such projects have been approved for construction. They will provide 7,186 beds for elderly and chronic patients and 193 centers for outpatient care and rehabilitation.

One of the serious limiting factors that retards the expansion of health services is the shortage of trained professional workers. This is especially true of nurses who, although their number has increased, are still in very short supply. To meet the most severe shortage, the Congress enacted and the Department established a program of aid to educate professional nursing teachers and administrators. The \$2 million appropriated for the first year started 587 traineeships.

Other medical services by the Public Health Service played important roles this year in protecting health:

The Nation was free from smallpox for the fourth straight year. Much of the credit must go to the Quarantine Service, which inspected planes and ships bringing a record number of passengers into the United States. Many of these people came from other areas of the world where smallpox was epidemic.

There was a mass migration of Hungarian refugees to this country, which required that these people be examined in large numbers and in

places where facilities had to be improvised. By the end of the year, 33,413 refugees had been examined for admission to the United States.

Substantial progress has been made in improving health facilities and services provided for American Indians and Alaska natives since July 1, 1955, when the Public Health Service assumed responsibility for the Government's Indian health program. Additional physicians and other health workers were brought into the program, services were expanded, and the physical plant was improved. Better health services and facilities for Indians are bringing about improvement in the unfavorable health conditions which are prevalent among them. Particularly notable are downward trends in death rates from tuberculosis and childhood diseases.

SERVICES TO THE STATES

About one-third of the Public Health Service's budget this year was spent in grants to States and Territories in support of public health programs. The primary objective of the Department's assistance was to bring the benefits of the latest health knowledge to the maximum number of people.

One of the most dramatic health stories of the year was the rallying of health forces to fight an epidemic of Asian influenza.

On April 18, 1957, doctors at Walter Reed Army Institute of Research in Washington cabled its military medical laboratory in Japan requesting cultures of a flu virus that had reportedly struck 10 percent of the population of Hong Kong. Just 25 days after the request, the cultures were flown into Washington. About a week later, Walter Reed scientists reported definitely that this was a new variant of influenza virus.

This meant that people had no natural immunity to the disease and that vaccines developed against flu in the past would not protect against the Asian strain. Walter Reed immediately gave the virus to the National Institutes of Health, which transmitted prototype strains to six licensed vaccine manufacturers. By June 7 a manufacturer submitted an experimental lot of vaccine to the Public Health Service for testing.

The Nation had developed a vaccine of considerable effectiveness against Asian flu before a case of the disease was confirmed in the United States.

A few days later, when the first confirmed outbreak of Asian flu was reported in Newport, Rhode Island, the Public Health Service was already moving fast.

Consultations immediately began with manufacturers who went into full-scale production of the new vaccine and agreed to distribute it according to a voluntary allocation system. In cooperation with professional and voluntary health groups, the Service conducted a na-

tional campaign of public information to encourage maximum use of the vaccine. Medical and hospital authorities organized their resources to care for large numbers of sick. Additional money appropriated by the Congress permitted more scientific and laboratory support of the fight against Asian flu.

By the fall of 1957, the Nation had weathered the most widespread influenza epidemic in 40 years—one whose impact had been reduced by the extensive use of vaccine. The fast identification of the virus, quick action by the Public Health Service, and prompt cooperation of health groups and pharmaceutical manufacturers throughout the country made it possible for a nation to organize in advance of an oncoming epidemic for the first time in history.

Another striking illustration of nationwide organization to battle a disease was the attack on poliomyelitis.

Only a few years ago, despite the generous gifts of the public and the hard work of the scientists, victory over polio seemed only a distant hope. No one knew how to cure it; no one knew how to protect himself against it. Polio was a mystery disease.

And then, the Salk vaccine was developed. All the years of work, and the faith and hope that prompted them, were justified. The Nation had a vaccine which, in test after test, proved highly effective in preventing paralytic polio.

To encourage widespread vaccination, Congress appropriated \$53.6 million for the purchase of vaccine—a program that was administered by this Department. About 64 million Americans had been vaccinated by the fall of 1957, almost half of them with the federally purchased vaccine. As the supply of the vaccine increased and as it was administered to greater numbers of people, the polio rates went down.

Paralytic polio cases in 1956—a year after polio vaccine had been administered on a large scale—were about half of what they had been in 1955. By the fall of 1957, paralytic cases were 80 percent below what they had been in 1955 and victory over this terrible disease seemed to be within reach.

But public apathy threatened to interfere with the knockout blow. About 45 million Americans under 40 had received no vaccine, and 30 million had taken only one or two doses and have yet to complete the full schedule of three doses. Millions of doses of polio vaccine were lying unused on the shelves of manufacturers and druggists. And millions of unvaccinated people ran the needless risk of being crippled or killed by polio.

The Department continued a vigorous public information effect to encourage greater use of the polio vaccine.

The Department was also engaged on several other health fronts. To estimate the extent to which the population is being exposed to

radiation, arrangements were made to take a number of air samples from 80 points around the country, water samples from 10 streams, and milk samples from 5 milk-producing areas. Air pollution of all kinds is now being measured in every State through a newly established National Network of Air Sampling Stations. During the first year that Federal funds were available for construction of sewage-treatment works to reduce water pollution, payments totaling \$37.9 million were approved for 446 communities.

An expanded accident-prevention program, in its first year of operation, organized a National Clearing House for Poison Control Centers. These centers have been established by about 100 communities to give physicians fast advice on the emergency treatment of patients who have been poisoned. The most frequent victims are children. The National Clearing House keeps these centers informed on the toxic contents of products sold for household use, and it recommends the treatment for people who eat or drink the products.

The Public Health Service was authorized a year ago to begin a continuing survey of the Nation's health so that the extent of illness and disability in the country would be more clearly defined. After a year of operation, the U. S. National Health Survey was preparing to publish its first statistics collected from door-to-door interviews throughout the Nation. A next step was to be medical examinations of a sample of the population. This continuing study will provide a valid basis for appraising the health of the American people and for planning methods to meet the health needs of the Nation.

There has been remarkable progress in improving the health of the American people, and it is worth noting. But the real value of noting progress lies, not in self-satisfaction over achievements but in charting what must yet be done. Medical science is changing rapidly, and its scope is broadening. Medical progress itself has not only created new problems; it has sharpened our awareness of human needs still unmet. Every forward step rightfully serves as a reminder of the distance yet to go.

Food and Drugs

A century ago the American family bought a comparatively small number of items. Most of the foods that a family ate were either raised or processed at home. "Boughten" foods were suspect—and with good reason, because too often they were unclean or adulterated. Medicines were simpler and less effective. The wise person either took the mixture compounded by the family doctor or brewed up a home remedy, because those were a lot safer than the kind that came from stores. The few people who used cosmetics settled pretty much for cold cream, rice powder, and simple fragrances.

Today the country is in the midst of a revolution in consumption. The homemaker's chores of food preparation—washing, peeling, shell-ing, and plucking—are greatly reduced by a host of foods that are ready to eat or nearly so. Bulk foods have almost disappeared. The average food store today stocks more than 5,000 items of packaged, frozen or canned edibles. In the drug field, over half the medicine used today by physicians and hospitals were unknown 15 years ago. And the cosmetics industry is one of the Nation's largest.

Yet the housewife seldom worries about the wholesomeness of a can of food, the safety of a bottle of medicine or the purity of a tube of lipstick. Her confidence is based upon the consumer safeguards which began in 1906 with the passage of the original "Pure Food and Drug Law" and much subsequent legislation which provides her with protection by the Food and Drug Administration and the State and local enforcement agencies.

The average family spends about one-quarter of its income on the foods, drugs, cosmetics and therapeutic devices which are subject to inspection by the Food and Drug Administration. While Food and Drug Administration enforcement is necessarily very selective, in the past year it made 20,241 establishment inspections, seized 809 shipments of products which did not comply with the law, and completed 182 criminal actions against violators.

But to protect the public adequately it is necessary to keep legislation up to date and in line with the swift changes in science and technology of recent years. For instance, producers now add to foods: artificial sweeteners, colors, flavorings, stabilizers, preservatives, anti-oxidants, tenderizers, and emulsifiers. And other chemicals find their way into the food supply as residues of fungicides, insecticides, defoliants, herbicides, and growth promoters.

Under present law, to prevent the use of a harmful chemical in a food the Government must prove that it is poisonous or deleterious. Yet little is known about the toxicology of many of the new compounds and long studies are required. Therefore, the Department has recommended to Congress a bill to require that the manufacturers concerned must furnish scientific evidence that chemical food additives are safe before they are used in foods.

On another front, the promotion of quack medicines continues to be a serious public health problem. One can no longer buy Indian Swamp Root Oil at the corner store, with labeling that promises to cure diabetes, cancer, or heart disease. But last year people were still going to some "clinics" to get a worthless medicine for cancer.

Because protracted litigation could not be relied on to protect cancer victims and their families adequately, the Department posted a public warning against the treatment in thousands of U. S. post

offices and other public buildings. These warnings and subsequent tighter enforcement measures by State agencies markedly reduced the number of persons who risk their lives by going to these "clinics."

Many types of fraudulent practices are not only becoming more widespread but are taking on the trappings of national movements and are bidding for wider public support. Associations have been formed with names calculated to convey the impression of scientific, medical, and public health aims. Conventions are held with pseudo-scientific agenda. The roster of speakers includes numerous persons convicted of violating the Federal Food, Drug, and Cosmetic Act. They attack organized medicine and the Government, alleging that there is a medical trust which seeks to suppress lifesaving medicines and treatments.

Many people are influenced by these views, with a resulting loss of confidence in the medical profession and in rational medical treatment.

Effective administration of the food, drug, and cosmetic law involves not only enforcement activities but a substantial educational program. The Food and Drug Administration increasingly directed its public information activities to counteract the growing efforts to promote fads and nostrums among the American people in place of sound health practices.

Education

In the past century sweeping changes have come about in American education. Teaching, curricula, methods, and materials have been changing and growing to keep pace with the growing Nation, with new scientific development, with the expanding sum total of knowledge, and with our increasingly important world position.

With some 41 million Americans—a fourth of our population—in school or college during the year, the serious problems facing our schools remained a major concern of the Department.

Enrollments in all elementary and secondary schools reached 39.1 million pupils—a record high for the Nation—and seriously overtaxed the ability of many schools to educate their students. This problem shortly will be inherited by American higher education. The number of young people knocking at the doors of our colleges and universities will almost double by 1970.

The measures of increasing enrollments have brought into sharp focus deficiencies in the supply of competent teachers and other school personnel as well as crowded and inadequate physical facilities for instruction.

The States built a record number of new classrooms last year and improved the operating efficiency of their school districts. Yet they reported in February 1957 that obsolescence and mounting enrollments created a total shortage of 159,000 classrooms. Proposed Federal legislation to help ease the classroom shortage was defeated in Congress for the second successive year.

But Federal assistance continued to go to communities where school enrollments had increased significantly as a result of Federal activities in their areas. This year Congress provided about \$223 million, for both the operation and construction of schools in these communities.

The finest school—the most helpful curriculum—can impart little of value without good teaching. The States reported that, while 1.2 million public school teachers were employed in elementary and secondary schools, there was a nationwide shortage of nearly 121,000 qualified teachers. This shortage was met by employing additional emergency teachers and by further increasing the size of classes.

The shortage of teachers, which is present today when our schools and colleges have some 42.5 million students enrolled, threatens to worsen steadily as enrollment grows to an expected 65 million students by 1970. If this is allowed to happen, it will be a severe blow to our national strength and welfare. Americans should recognize one awesome fact: whatever coming generations think and do about law and government and the free way of life, about labor and industry, about the quest for a durable world peace, about defense against aggressors will be determined to a substantial degree by the day-to-day influence of the teachers provided for them.

Another problem of far-reaching significance to the Nation was the very large number of capable students who are unable or unwilling to continue their education to the limits of their intellectual abilities. This is a waste, not only of individual opportunity but of the most valuable resource of the Nation as a whole—the talents of its young people.

This attrition works all through the school years. About 60,000 of the more talented students drop out of high school each year before graduation, according to some studies. But—and this may be even more important—of those who do graduate in the upper fourth of their class, more than 1 out of 3 do not go on to college. In all, more than 200,000 of the students who could profit most and make the best contribution to society end their education below the college level.

While several major problems—buildings, teachers, and manpower needs—have been widely publicized, many others are important and are receiving the attention of the Office of Education and private agencies. It is encouraging that in the past year the Office of Edu-

cation has been able to launch a promising new program of research in cooperation with colleges and universities and State educational agencies. As required by Congress, about half of the first year's projects dealt with the important problem of education of mentally retarded children.

The Office of Education has also been able to expand and improve its fact-finding and consultant services. These services are concerned with such matters of widespread concern as school finance, instructional programs, adult education, guidance, effective and economical design of classrooms, improvement of practical nurse training, and other vocational education programs.

The budget for the operations of this Office has been substantially increased in the past 2 years, but much remains to be done before the Office can make a maximum contribution to the cause of education throughout the country.

If American education is to be improved significantly many matters must receive closer attention at the State and local levels. These involve such matters as the curriculum, the methods, and the philosophy of education. They touch on such questions as whether Americans are neglecting basic learning in such fields as the sciences, mathematics, English, foreign languages, and history, and whether some scholastic standards are failing to challenge the best in many young minds.

One fact has been demonstrated so often and so clearly as to be beyond dispute: education is a keystone in the economic and social progress of the American people. At any time, to fall behind in education is short-sighted false economy. In today's perilous world, to fail to invest enough of our expanding resources to support education on the scale that is necessary could be tragic.

Old-Age, Survivors, and Disability Insurance

This year the 10 millionth person began receiving social security (OASDI) benefit payments. At this milestone it is appropriate to restate some principles upon which this social insurance system is founded, to examine where it stands today, and to explore some of the results of this system after two decades of operation.

One of the social security system's most important principles is that benefits are earned through work—and the right to benefits is paid for by contributions from the worker's own earnings and from his employer, as fixed by law.

Another fundamental principle is that social security payments are not intended as a substitute for private initiative but, rather, are intended to provide a foundation upon which to build additional security through private effort and individual thrift.

A third important principle is that social security should be flexible, keeping abreast of the times and utilizing new knowledge. Despite a sharp growth in population, despite rapid economic change, and despite the shocks of war, the social security system has remained strong as its provisions have been adjusted in the light of changing conditions.

Today—as the result of changes made in the law as recently as this year—more than 9 out of 10 workers, including self-employed persons, are covered under the OASDI program. They are earning protection for themselves and their families against the hazards of old age, disability, and death. And 73 million people, by their work now or in the past, are already insured under the system.

Some 10.3 million former workers, their dependents, and their survivors were receiving \$554.6 million in monthly benefit payments in June. About 8.5 million of these people were men aged 65 and over and women aged 62 and over, and the remaining 1.8 million were mothers and children. The first benefit checks were issued in July to more than 100,000 disabled workers aged 50 to 64 who were covered by the 1956 amendments to the Social Security Act. Many more applications had been filed and were being processed.

The Federal old-age and survivors insurance trust fund totaled \$23 billion at the close of the fiscal year, and the Federal disability insurance trust fund, created the previous year, totaled \$337 million.

The results of social security can be stated in two ways: what it did not do and what it did.

Social security did not lower the standard of living or kill individual thrift, as was predicted by some critics of this system in its early years.

But what did it do? It has benefited millions of individuals and has had broad and profound effects on our society as a whole. Perhaps the finest thing about the program is that it removed the fear of a penniless old age from the minds of many people.

The social security system also plays an important part in maintaining the Nation's economic growth and stability by providing purchasing power for many persons who otherwise might be most in need.

Finally, by providing for people at ages when they are least likely to have a source of income, it reduces the number of those who require public assistance.

Public Assistance

About 3.4 percent of our total civilian population receives some form of public assistance. Federal, State, and local governments this year paid almost \$3 billion to assist some 6 million needy persons

including dependent children, and aged, blind, or disabled adults.

These programs were set up during the bleak days of the Great Depression. Why then, in the midst of prosperity and when income insurance programs are available, should the Nation be spending more than half again as much (in constant dollar terms) on public assistance as it did in 1938?

One factor is the nature of the growth in our population. Our young and old—among whom dependency occurs most frequently—account for 80 percent of the persons receiving special types of assistance. And the young and old today represent a larger proportion of our total population than they did two decades ago.

Secondly, many persons are receiving public assistance today because the work they did in the past or the work of those who supported them was not covered by social security. It has been only within the last few years that the social security system has covered nearly all the working population and thereby reduced the number of people who would be dependent upon public assistance in their later years.

Furthermore, in aid to dependent children, the need for assistance arises from situations that are not covered by the old-age and survivors insurance program. Most of the children have been deprived of parental support for reasons other than death—the only circumstance under which children are eligible for survivors insurance benefits.

Along with providing assistance, a primary objective of these Federal programs is to develop services that will encourage self-care, self-support, and the strengthening of family ties. One of the by-products of such services should be the reduction of the number of those who are dependent on public assistance.

Toward that end the Department proposed and the Congress authorized 2 programs: for more intensive research into the causes of dependency and for training social workers to help needy persons deal constructively with the complex problems contributing to their dependency. By the close of the year, however, funds to carry out these programs had not been made available.

Services for Children

The Children's Bureau, which for 45 years has been the only Federal agency exclusively concerned with the welfare of America's youth, this year gave special attention to two problems of great magnitude: juvenile delinquency and mental retardation.

The adolescent today is under increased pressures. Although the vast majority grow up to be responsible adults, a sufficient number engage in delinquent behavior to cause concern all across the country.

The Children's Bureau continued its work on delinquency, concentrating especially on developing standards for care and on training needed personnel.

New emphasis was given to develop programs for a long-neglected segment of our child population—the mentally retarded. On the basis of the increased funds earmarked by Congress for this group of children, the Children's Bureau approved 26 special demonstration projects to be operated as part of State health department programs in maternal and child health. In addition, regular maternal and child health funds in many States went into programs for mentally retarded children.

Vocational Rehabilitation

Of the many handicapped and disabled people in America, there are many who—with some professional assistance—could become self-supporting.

For the second consecutive year the State and private rehabilitation agencies, working with the support of the Federal Office of Vocational Rehabilitation, set a new record in the rehabilitation of handicapped persons. This year 71,570 handicapped persons were prepared for jobs and established in gainful employment, an increase of 8 percent over the previous year.

The State-Federal programs cost \$57.6 million to operate—\$36 million in Federal grants and \$21.6 million provided by the States. The men and women rehabilitated will increase their annual earnings from about \$19 million to about \$137 million in their first full year of employment. It is estimated that during their average working life they will pay back in Federal income taxes a larger amount of money than the Federal grants used for their rehabilitation.

Last year 14,000 of those rehabilitated were on public assistance rolls, receiving about \$11 million each year. That same sum of money was spent once to rehabilitate these people and take them off public assistance.

It is worth noting further that of the handicapped people rehabilitated last year under the State-Federal programs, some 3,500 went into professions such as teaching, medicine, and engineering—all making important contributions to the Nation's productivity.

To alleviate the shortage of trained personnel, the Office of Vocational Rehabilitation allocated an additional \$3 million in 200 awards for teaching grants and traineeships in rehabilitation. Ten medical schools received grants for training medical students in rehabilitation, and more than 100 doctors received stipends toward their training in physical medicine and rehabilitation. More than 2,000 persons already in rehabilitation work studied in 80 short-term courses, financed

in part by Federal grants. The Office also granted \$1 million for the expansion of rehabilitation facilities or sheltered workshops, and another \$2 million for research and demonstration projects.

Special Planning for the Aged

Since the turn of the century, our population has doubled. At the same time the number of those aged 65 and older has multiplied 4 times. They represent more than 8 percent of our total population, and the proportion is expected to increase.

If American society can better adjust to the needs of this growing number of older persons, it would both assist these people in living more meaningful lives and would enlarge the proportion of the population that is self-supporting and productive.

Older persons—like everybody else—want and should have certain basic conditions of life. Chief among these is economic security—the financial ability on a continuing basis to maintain a level of living compatible with their standards and needs.

But they should have more than financial security alone. Satisfactory living for older people would certainly include health services and housing suitable to their needs. Older people, like others, require opportunities for education, recreation, and full participation in community life.

Many activities of the Department directly benefit the aged. Others assist them indirectly. Social security is one of the most important sources of income for retired workers and their survivors. Medical research is increasingly directed toward chronic and degenerative diseases. New grants are going for construction of chronic-disease hospitals and nursing homes. And the Office of Vocational Rehabilitation, the Office of Education, and the Food and Drug Administration pay special attention to the needs of older persons.

To further strengthen this Department's activities for the aged, a Special Staff on Aging was established this year in the Office of the Secretary. It provides consultation and information to States, communities, and voluntary agencies; serves as a clearinghouse for information and material on aging; and issues a monthly news bulletin, *Aging*. It also serves as the secretariat for the Federal Council on Aging which was created by the President in 1956. The Council itself consists of representatives of 13 Federal departments and agencies.

* * * * *

The activities described here have not been the functions of a government far removed from people. They are related intimately to human beings today.

In the Nation's efforts to improve health, education, and economic security, the goal is to develop opportunities for a better life for the

individual. As the individual advances in these fields, not only is his own life enlarged but the Nation as a whole is enriched.

This progress, therefore, is not the exclusive concern of private endeavor, of any one group of people, of any one administration, of any one level of government. Its fulfillment should be an aspiration of all men.

Table 1.—Grants to States: Total grants under all Department of Health, Education, and Welfare programs, fiscal year 1957

[On checks-issued basis]

| States, Territories, and possessions | Total | Social Security Administration | Public Health Service | Office of Education | Office of Vocational Rehabilitation | American Printing House for the Blind |
|--------------------------------------|--------------------|--------------------------------|-----------------------|---------------------|-------------------------------------|---------------------------------------|
| Total | \$1, 963, 870, 093 | \$1, 594, 674, 421 | \$130, 390, 272 | \$204, 336, 577 | \$34, 228, 823 | \$240, 000 |
| Alabama..... | 61, 212, 620 | 50, 593, 352 | 5, 087, 664 | 4, 440, 916 | 1, 085, 431 | 5, 257 |
| Arizona..... | 14, 730, 449 | 10, 933, 758 | 1, 217, 585 | 2, 312, 158 | 265, 206 | 1, 742 |
| Arkansas..... | 28, 475, 397 | 23, 350, 788 | 2, 052, 286 | 2, 337, 833 | 729, 233 | 5, 167 |
| California..... | 214, 054, 627 | 171, 901, 675 | 6, 217, 198 | 33, 748, 271 | 2, 169, 849 | 17, 634 |
| Colorado..... | 33, 686, 804 | 27, 608, 088 | 1, 413, 622 | 4, 428, 815 | 234, 386 | 1, 893 |
| Connecticut..... | 16, 111, 563 | 11, 998, 464 | 1, 575, 754 | 2, 175, 268 | 358, 292 | 3, 785 |
| Delaware..... | 2, 804, 930 | 2, 030, 261 | 178, 584 | 407, 328 | 188, 006 | 751 |
| District of Columbia..... | 5, 766, 265 | 4, 993, 937 | 463, 490 | 79, 961 | 227, 826 | 1, 051 |
| Florida..... | 54, 651, 488 | 45, 333, 978 | 2, 859, 678 | 5, 429, 497 | 1, 122, 537 | 5, 798 |
| Georgia..... | 62, 878, 000 | 50, 153, 923 | 4, 682, 198 | 6, 118, 713 | 1, 915, 986 | 7, 180 |
| Idaho..... | 7, 578, 030 | 5, 631, 177 | 1, 011, 929 | 867, 535 | 66, 277 | 1, 112 |
| Illinois..... | 69, 431, 797 | 59, 731, 222 | 3, 626, 024 | 4, 521, 467 | 1, 541, 428 | 11, 656 |
| Indiana..... | 26, 066, 010 | 21, 315, 348 | 2, 335, 098 | 1, 928, 961 | 482, 487 | 4, 116 |
| Iowa..... | 27, 914, 403 | 24, 039, 713 | 2, 029, 583 | 1, 315, 854 | 525, 257 | 3, 996 |
| Kansas..... | 27, 879, 787 | 21, 074, 145 | 2, 259, 607 | 4, 198, 327 | 345, 275 | 2, 433 |
| Kentucky..... | 41, 305, 703 | 36, 009, 394 | 2, 646, 689 | 2, 268, 184 | 377, 501 | 3, 935 |
| Louisiana..... | 87, 156, 376 | 80, 694, 527 | 3, 658, 481 | 1, 827, 217 | 972, 095 | 4, 056 |
| Maine..... | 10, 705, 880 | 8, 336, 552 | 1, 046, 970 | 1, 107, 971 | 214, 387 | ----- |
| Maryland..... | 24, 949, 435 | 12, 811, 218 | 2, 084, 390 | 9, 674, 701 | 374, 470 | 4, 656 |
| Massachusetts..... | 56, 697, 856 | 51, 144, 023 | 1, 881, 016 | 3, 049, 749 | 613, 244 | 9, 824 |
| Michigan..... | 58, 348, 681 | 44, 562, 897 | 5, 471, 029 | 7, 008, 278 | 1, 293, 769 | 12, 708 |
| Minnesota..... | 34, 873, 220 | 29, 240, 426 | 3, 236, 461 | 1, 594, 176 | 796, 509 | 5, 648 |
| Mississippi..... | 31, 989, 934 | 26, 223, 936 | 3, 427, 081 | 1, 780, 390 | 554, 682 | 3, 845 |
| Missouri..... | 89, 295, 372 | 80, 276, 605 | 4, 587, 759 | 3, 717, 508 | 709, 234 | 4, 266 |
| Montana..... | 8, 551, 118 | 6, 566, 056 | 549, 931 | 1, 263, 528 | 170, 642 | 961 |
| Nebraska..... | 14, 435, 117 | 10, 822, 056 | 1, 407, 112 | 1, 970, 096 | 234, 411 | 1, 442 |
| Nevada..... | 3, 258, 253 | 1, 856, 651 | 423, 909 | 944, 319 | 33, 374 | ----- |
| New Hampshire..... | 4, 594, 310 | 3, 273, 132 | 501, 224 | 732, 599 | 87, 355 | ----- |
| New Jersey..... | 21, 622, 165 | 16, 020, 883 | 1, 727, 280 | 3, 215, 614 | 650, 697 | 7, 691 |
| New Mexico..... | 16, 828, 501 | 10, 921, 606 | 1, 200, 375 | 4, 552, 144 | 151, 883 | 2, 493 |
| New York..... | 135, 125, 027 | 119, 821, 080 | 6, 502, 991 | 6, 526, 311 | 2, 255, 028 | 19, 617 |
| North Carolina..... | 49, 444, 674 | 38, 965, 494 | 6, 103, 765 | 3, 053, 848 | 1, 310, 422 | 11, 145 |
| North Dakota..... | 7, 459, 843 | 5, 649, 843 | 994, 019 | 577, 236 | 217, 964 | 781 |
| Ohio..... | 68, 467, 207 | 57, 634, 310 | 3, 847, 831 | 6, 296, 978 | 677, 003 | 11, 085 |
| Oklahoma..... | 63, 212, 680 | 51, 987, 194 | 3, 099, 316 | 7, 391, 471 | 732, 085 | 2, 614 |
| Oregon..... | 15, 430, 630 | 11, 784, 367 | 1, 502, 763 | 1, 733, 154 | 407, 282 | 3, 064 |
| Pennsylvania..... | 70, 170, 217 | 57, 890, 780 | 5, 309, 500 | 3, 904, 622 | 3, 049, 994 | 15, 321 |
| Rhode Island..... | 9, 790, 308 | 7, 071, 312 | 1, 018, 815 | 1, 475, 735 | 224, 446 | ----- |
| South Carolina..... | 27, 804, 266 | 21, 184, 730 | 2, 825, 206 | 3, 152, 164 | 639, 072 | 3, 094 |
| South Dakota..... | 9, 730, 161 | 6, 771, 361 | 993, 034 | 1, 821, 457 | 143, 047 | 1, 262 |
| Tennessee..... | 42, 503, 932 | 35, 035, 802 | 3, 302, 210 | 3, 293, 230 | 867, 523 | 5, 167 |
| Texas..... | 126, 575, 646 | 105, 403, 048 | 7, 777, 958 | 12, 348, 662 | 1, 037, 236 | 8, 742 |
| Utah..... | 9, 735, 931 | 6, 833, 482 | 726, 911 | 1, 973, 903 | 200, 253 | 1, 382 |
| Vermont..... | 4, 610, 234 | 3, 601, 053 | 417, 125 | 330, 302 | 161, 754 | ----- |
| Virginia..... | 33, 110, 928 | 14, 618, 186 | 3, 233, 589 | 14, 284, 826 | 968, 259 | 6, 068 |
| Washington..... | 45, 545, 456 | 37, 066, 602 | 1, 264, 599 | 6, 633, 305 | 577, 135 | 3, 815 |
| West Virginia..... | 28, 658, 846 | 24, 390, 627 | 2, 540, 362 | 938, 918 | 785, 664 | 3, 275 |
| Wisconsin..... | 26, 477, 413 | 21, 910, 172 | 2, 163, 733 | 1, 623, 066 | 774, 824 | 5, 618 |
| Wyoming..... | 3, 880, 686 | 2, 704, 242 | 404, 236 | 688, 791 | 83, 417 | ----- |
| Alaska..... | 6, 201, 251 | 2, 191, 025 | 435, 641 | 3, 478, 734 | 95, 851 | ----- |
| Hawaii..... | 7, 777, 305 | 4, 046, 214 | 661, 207 | 2, 889, 362 | 180, 131 | 391 |
| Puerto Rico..... | 13, 550, 510 | 8, 307, 848 | 4, 302, 303 | 595, 964 | 341, 932 | 2, 463 |
| Virgin Islands..... | 429, 631 | 355, 858 | 47, 091 | 20, 000 | 6, 682 | ----- |
| Other possessions..... | 343, 220 | ----- | 56, 060 | 287, 160 | ----- | ----- |

Social Security Administration

Social Security in 1957

Program Emphasis

RELATIONSHIPS BETWEEN income-maintenance and service aspects of social security measures claimed special emphasis throughout the Social Security Administration.

With the achievement of almost universal coverage under old-age, survivors, and disability insurance—about 92 out of every 100 jobs are now within the scope of the program—and as a result of the aging of the beneficiaries, questions relating to the need for certain kinds of services have come increasingly to the fore. The provision of disability benefits through the 1956 amendments focused special attention on the relation between income-maintenance and rehabilitation services.

Increased emphasis on medical and social services for public assistance recipients reflected the special impetus resulting from the 1956 amendments. The new provision for separate Federal matching to help States broaden medical care for public assistance recipients, while not effective until July 1, 1957, was already leading to the development of new medical care programs in several States where none previously existed and to planning for improvement or expansion of existing programs in other States. The 1956 amendment relating to the purpose of public assistance resulted in greater emphasis on social services leading to the strengthening of individual and family independence. During the year, the States took stock of the scope and level of services being provided and planned for their further development. With the focus on constructive and preventive approaches, the goals of public assistance as they relate to income-maintenance and other services were examined.

The primary objective of the grant-in-aid programs of the Children's Bureau is of course that of service. The amount and source of the income of families receiving these services is nevertheless also of concern.

This focus on the relationships between maintenance and service aspects in each of the Social Security Administration programs in 1957 was extended also to interprogram activities. Continuing joint explorations by the Children's Bureau and the Bureau of Public Assistance of welfare services for aid to dependent children families provided further opportunity for a reevaluation of the interrelatedness of income and other welfare service needs. The health needs and medical care problems of persons receiving insurance benefits or assistance received special attention. Stepped-up activities in the field of aging cut across program lines and took into consideration both service needs and income-maintenance aspects.

Program Operations

The number of beneficiaries of the old-age, survivors, and disability insurance program reached the 10-million mark in May 1957. At the end of the fiscal year, 10.3 million persons were receiving monthly benefits at an annual rate of \$6.7 billion. This was an increase of nearly 2 million beneficiaries during the year and \$1.4 billion in the annual rate.

During the period between the 1956 amendments and the end of the fiscal year, 753,000 monthly benefit awards were made to women between 62 and 65 years of age. A total of 541,000 applications were received from persons having farm self-employment income, or their dependents or survivors. By the end of the fiscal year a period of disability had been established for 273,000 disabled workers. About 301,000 applications (including 86,000 from persons for whom a period of disability had already been established) had been received in district offices for the disability benefits provided under the 1956 amendments, first payable for the month of July 1957.

Of the total of 10.3 million beneficiaries at the end of the year, 8.5 million or 82 percent were aged men and women, including 600,000 women aged 62-64. At the beginning of the year, aged beneficiaries—all of whom were 65 and over—made up 80 percent of the beneficiary rolls.

In June 1957, more than half (52.4 percent) of the Nation's 14¾ million people who had passed their 65th birthday were actually receiving benefit checks under the insurance program. Additional aged persons had their benefits withheld, generally because of employment, and others had not yet retired and filed a claim. In all,

more than three-fifths of the Nation's aged men and women were eligible for benefits. Of the individuals who will reach age 65 in 1957, 3 out of 4 will be eligible.

Old-age assistance caseloads declined by 20,000 over the year. The 2,504,000 receiving old-age assistance in June 1957 represented 17 percent of the total population 65 and over, a marked drop from the 23 percent who received assistance in the autumn of 1950 when old-age assistance caseloads first began to decline.

Under each of the other three federally aided assistance programs, caseloads rose slightly. A total of 2.8 million recipients of aid to dependent children, aid to the blind, or aid to the permanently and totally disabled were receiving payments in June, 177,000 more than a year earlier.

Payments under each of the programs averaged somewhat higher in June 1957 than in the same month last year. The aggregate of payments under the four programs rose 9 percent during the year to \$233 million in June 1957. The higher expenditures, reflecting upward revisions in State standards of assistance to meet rising living costs, resulted in part from the 1956 amendments increasing the Federal share in State assistance payments.

State maternal and child health agencies provided health supervision in prenatal clinics for some 224,000 mothers in 1957. About 445,000 infants and 640,000 other children received health supervision through well-child clinics. In addition, health departments provided nursing service for about 2,660,000 infants and other children.

Crippled children's services under federally aided programs reached some 290,000 children. A significant development during the past year is the trend toward the establishment of diagnostic and treatment centers in medical schools for children with handicaps.

Efforts to strengthen and expand social services for children became increasingly difficult due to an insufficiency of qualified child welfare workers and to recruitment problems. State welfare agencies continued to use Federal funds for child welfare services primarily for personnel and professional education.

The Congress, in appropriating \$16 million for maternal and child health grants for the fiscal year 1957, earmarked \$1 million for special projects for mentally retarded children and the House Committee on Appropriations recommended that approximately \$1 million additional also be used on the problems of mentally retarded children. By the end of the year projects had been approved in 26 States by the Children's Bureau, with commitments totaling about \$1,300,000. In addition, State health departments have reported budgeting over

\$500,000 of other Federal maternal and child health funds for children with mental retardation.

Juvenile delinquency continues to increase. Provisional figures for 1956, based on juvenile court reports received thus far by the Children's Bureau, show an increase of about 20 percent in juvenile delinquency cases over 1955. During the same period the child population in the age group 10-17 went up only about 3 percent. The latest annual bulletin of the Federal Bureau of Investigation's Uniform Crime Reports shows an increase of 17.3 percent in police arrests of young persons under 18 in 1956 as compared with 1955. Reflecting this trend is the increasing volume of technical consultation and written guides for practice provided the State and local agencies working to improve their programs to combat juvenile delinquency.

Federal credit union operations continued upward during 1957 to new high levels. The number of operating Federal credit unions was 8,592 on June 30, 1957, a gain of 484. An 11-percent increase in membership brought the total to nearly 4.8 million. Members' savings in Federal credit unions rose 18 percent, to \$1,464 million at the end of the fiscal year, while average shareholdings moved up from \$288 to \$307. Loans outstanding to members amounted to \$1,157 million as the fiscal year ended, an increase of 22 percent. Aggregate assets of Federal credit unions exceeded \$1.6 billion, 19 percent more than a year earlier.

Program Administration in 1957

To carry out the tremendously expanded operations of its programs the Social Security Administration had 22,472 employees at the end of June, not quite 4,000 more than the total on the payroll a year earlier. The vast majority of these employees were in field, area, and regional offices.

The Bureau of Old-Age and Survivors Insurance had to adopt emergency measures to meet the operating demands resulting from the 1956 amendments. Benefits became payable to two new categories of beneficiaries soon after the amendments were enacted: benefits to women between ages 62 and 65 were first payable for November 1956 and, for January 1957, benefits to disabled children aged 18 or over with a total disability that began before age 18. Applications based on farm self-employment swelled the workload during the spring of 1957. Intensive efforts were made during the last part of the fiscal year to publicize the deadline of June 30 for filing applications to establish a period of disability with a beginning date more than 1 year prior to filing and as early as the actual onset of disablement. (Legislation enacted just after the end of the fiscal year extended this deadline through June 30, 1958.) The Bureau gave top priority to

processing as many disability claims as possible in preparation for the payment of benefits in August 1957.

During the year, plans were developed for two beneficiary surveys to be conducted by the Bureau of Old-Age and Survivors Insurance in fiscal year 1958. One is designed to provide current data on the economic situation of beneficiaries. The other is a long-term survey involving revisits at 1- or 2-year intervals and is focused on the gathering of information that will show how the situation of beneficiaries changes with the passage of time.

In September 1956, procedures were established to combine monthly benefit checks to husband and wife beneficiaries. When these procedures become fully operative, savings to the old-age and survivors insurance trust fund will approximate \$1 million a year.

In the Bureau of Public Assistance, priority was given to work necessary to implement the 1956 amendments to the public assistance titles. The amendments relating to medical care and increased emphasis on services involved considerable preparation on the part of both Federal and State agencies and, in some instances, the enactment of new State legislation. The Bureau of Public Assistance issued policy and guide materials for use of the States in reexamining their provisions for medical care, welfare services, and staff training and in planning improvements. By the end of the fiscal year, all States had submitted descriptions of the services they make available, reflecting in part the past year's increased and expanded activities in this area.

The Bureau of Public Assistance, in its continuing work with the States, placed emphasis on the development and maintenance of sound and efficient public assistance programs, including review of administrative costs in relation to program objectives, and on cooperation with public and national voluntary agencies in areas of mutual concern and interest.

The Children's Bureau launched a large-scale study to examine the reasons for the large number of staff losses in child welfare and private family service agencies.

The Interdepartmental Committee on Children and Youth, for which the Children's Bureau furnishes the secretariat, was a co-sponsor of the Joint Conference on Children and Youth held in Washington in December 1956, at which over 200 representatives of State, national voluntary, and Federal agencies participated.

Federal credit unions continue to increase in size as well as number, a trend having important implications for the program administration responsibilities of the Bureau of Federal Credit Unions. To anticipate the need for changes in procedures, Bureau policies pertaining to chartering, examination, and supervision were studied.

During the fiscal year, the Bureau of Federal Credit Unions completed a special survey of the purposes for which loans were made to members during 1956.

International Activities

The Social Security Administration, through its various cooperative activities, had the benefit of exchange with the experts from programs in 65 countries during 1957. Increased interest of governments in improving social conditions in their countries is reflected in the growing status of social work in the exchange programs in every geographical area.

The Social Security Administration continued to participate in policy development in the international social welfare field through representation at the United Nations meetings and those of the Organization of American States. The Interdepartmental Committee on International Social Welfare Policy, under the chairmanship of the Director of the Bureau of Public Assistance, developed policy recommendations for meetings of the UN General Assembly, the Economic and Social Council, the Social Commission, and the International Labor Organization. Papers were also prepared in connection with meetings of the United Nations Children's Fund (UNICEF) and the Organization of American States.

The largest international meeting during the year was the Eighth Session of the International Conference of Social Work, held in Munich, Germany, during the week of August 5. The Commissioner participated as a plenary speaker and Social Security Administration staff participated in expert groups.

A new activity that developed during the year was the implementation of plans for the reciprocal exchange of social workers with five European countries—Austria, Belgium, Norway, Sweden, and Yugoslavia. This program was undertaken in cooperation with the International Exchange Service of the Department of State. National Exchange Committees already established in the various countries in cooperation with the United Nations program are assisting with program and hospitality.

During fiscal year 1957, the Social Security Administration offered training facilities to 770 persons, 10 percent more than in 1956. The trainees came from 65 different countries, representing every degree of development in social welfare and in maternal and child health. Of the 149 persons who were here as long-term trainees under the sponsorship of the International Cooperation Administration, or as scholars or fellows under the United Nations and the World Health Organization, slightly more than half were studying and observing

aspects of child welfare services or of maternal and child health under the auspices of the Children's Bureau. In contrast, almost 2 out of every 3 of the 621 persons who came to the Social Security Administration for a shorter time were interested in the social insurance and public assistance programs and administration. The increase in the number interested in social work education reflected the trend in other countries to develop their own social work training facilities.

As in past years, the Social Security Administration cooperated with the International Cooperation Administration in the nomination and technical support of experts in the fields of social welfare, social insurance, and maternal and child health, as required by the agreements between that organization and the Department. The total number of experts assigned this year was 25, compared to 23 in 1956. New assignments in Tunisia and Korea increased to 13 the number of countries in which assignments were made or continued.

Old-Age, Survivors, and Disability Insurance

In May 1957, the number of beneficiaries receiving old-age and survivors insurance benefits reached 10 million. Speaking on that occasion of the growth of the social security insurance system, the Secretary of Health, Education, and Welfare remarked:

Truly this is a milestone in the progress of the American people toward freedom from the fear of want. . . . Few people now question whether we should have a basic social security system. . . . Rather, it is evident that as the productivity of the people steadily increases, as more and more goods and services become available for all, there are still further opportunities for sound, forward-looking steps toward the prevention or elimination of want in this country. . . . Both political parties strongly support a sound social security system. Although long-range projections cannot be precise, the present schedule of taxes provided in the law and the present schedule of benefits are approximately in balance. The system is in very sound condition and should continue to be self-sustaining. . . .

The social security system plays an important part in maintaining general economic growth and stability. It provides purchasing power for many persons who otherwise might be most in need. The benefits—some \$7 billion this year—quickly enter the stream of commerce and help sustain business and industry against sudden troughs and down-turns.

Among the most important activities of the Bureau of Old-Age and Survivors Insurance during fiscal year 1957 was the effectuation of the 1956 amendments. Coverage was effected for members of the uniformed services, almost all previously excluded professional self-employed groups, additional self-employed farmers, and certain

other groups of workers. With these extensions of coverage, the program now provides protection for almost all American families. The only major groups that still remain excluded are Federal employees already under a retirement system, doctors of medicine, nonregularly employed farm and domestic workers, and low-income farm and nonfarm self-employed persons.

During 1957 the Bureau faced the largest workload in its history. This was the first year in which a large number of farmers and their families became beneficiaries under the program. Lowering the retirement age for women to 62 also accounted for a substantial part of the great increase in the number of old-age and survivors insurance benefit awards. The payment of monthly benefits to disabled workers between the ages of 50 and 65, beginning for July 1957, added much to the volume of the Bureau's work. Extensive administrative adjustments were made necessary by the unprecedented volume and complexity of the Bureau workload. At the same time every effort was made to uphold the Bureau's high standard of service to the public. Throughout the year the Bureau maintained as its primary objective the combination of efficiency in its mass operations and sympathetic treatment of the people that the program serves.

A more detailed record of the year's significant events and accomplishments is given in the following sections.

What the Program Is Doing

BENEFICIARIES AND BENEFIT AMOUNTS

Unprecedented increases occurred in fiscal year 1957 in the number and amount of monthly benefits being paid under the program. In June 1957, 10.3 million persons were receiving benefits at a monthly rate of \$554.6 million—increases from June 1956 of almost 2.0 million in number and \$115.2 million in amount. About 8.5 million of the beneficiaries were men aged 65 or over and women aged 62 or over—5.8 million of them retired workers and 2.7 million the wives and dependent husbands of retired workers and the widows, dependent widowers, and dependent parents of workers who had died. Of the remaining 1.8 million, about 400,000 were mothers and 1.4 million were children.

The growth in the number of beneficiaries stemmed partly from the large number of benefit awards to women under the 1956 amendment that lowered to 62 the retirement age for women, effective in November 1956; about 600,000 women aged 62–64 were receiving benefits at the end of June 1957. Contributing also to the increase in the number of beneficiaries was the large number of awards flowing from the provision in the 1954 amendments to the Social Security

Act that extended coverage to self-employed farm operators; applications for benefits were received from more than half a million farmers and their dependents. The increase in the total amount of benefits payable monthly resulted from the marked growth in the total number of beneficiaries, the rising proportion of benefits computed on the basis of earnings after 1950, and the increasing number computed under the provision permitting up to 5 years of lowest earnings and periods of total and permanent disability to be dropped in the computation of the average monthly wage.

In June 1957, the average old-age insurance benefit paid to a retired worker who had no dependents also receiving benefits was \$59.90 a month. When the worker and his wife both received benefits, the average for the family was \$107.80. Families consisting of a widowed mother and two children received on the average \$144.60. Among beneficiaries on the rolls at the end of June 1957 whose benefits are based on earnings after 1950 with eligibility to omit years of lowest earnings, the average for a retired worker with no dependents receiving benefits was about \$73.00, for an aged couple about \$121.00, and for a widowed mother and two children about \$182.00.

DISABILITY PROVISIONS

During the fiscal year, a period of disability was established for about 138,000 disabled workers; the total number established since the beginning of the program in July 1955 was 273,000. About 127,000 applications for a period of disability were denied during the fiscal year; the total number of denials since July 1955 was 234,000. A person for whom a period of disability has been established has his insurance rights preserved during the period in which permanent and total disability prevents him from performing any substantial gainful work. Thus, such periods will not count against the disabled person in determining whether he or his survivors are eligible for benefits or in calculating the amount of the benefits.

By the end of December 1956 almost 40,300 persons were receiving old-age benefits that had been increased by an average of \$9.76 a month as a result of having had a period of disability established. The higher benefits were attributable to the exclusion of a period of disability and also to the dropping of as many as 5 years of lowest earnings in the computation of the worker's average monthly wage when eligibility for such dropout stemmed from the disability freeze. About 13,000 wives and young children of retired workers and about 5,500 widows, children, and dependent parents of workers who had established a period of disability before death were also receiving larger monthly benefits because of the freeze. For the same reason, lump-sum death payments during the calendar year ended December

1956 based on the earnings records of 8,900 deceased workers were increased by an average amount of \$21.66 per worker.

The 1956 amendments to the Social Security Act provided for payment of monthly disability insurance benefits beginning July 1957 to workers aged 50-64 who are totally and permanently disabled. More than 300,000 persons (including 86,000 persons for whom a period of disability had already been established) had filed applications for monthly disability benefits by the end of June 1957. Over 100,000 benefit checks were issued to disabled workers in August as payment for the month of July, the first month for which such benefits were payable. The applications not yet acted upon were being processed and benefits will be paid retroactively to July 1957 to those who meet the requirements. Monthly benefits became payable, beginning January 1957, to totally disabled persons aged 18 or over whose disability began before they reached age 18 and who were children of retired or deceased insured workers. By the end of June 1957, such monthly benefits were being paid to 10,000 persons. Many more applications had been filed and were being processed.

THE PROTECTION PROVIDED

Of the population under age 65, an estimated 65.8 million were insured at the beginning of the calendar year 1957. Some 28.2 million of these people were permanently insured—that is, whether or not they continued to work in covered jobs they will be eligible for benefits when they reach retirement age, and their families are assured of protection in the event of their death (included in this total were some 0.7 million women aged 62-64 who were already eligible for old-age benefits). The remaining 37.6 million were insured but would have to continue in covered work for an additional period to make their insured status permanent. Nine out of ten of the mothers and young children in the Nation were assured that they would receive monthly benefits in case of the death of the family earner. An estimated 36 million of the insured persons under age 65 also met the work requirements for protection against the risk of long-term and severe disability.

Of the 14.7 million people aged 65 or over in the United States in December 1956, 62 percent were eligible for benefits under the program. Forty-seven percent were actually receiving benefits, and 15 percent were not receiving benefits because they or their husbands were receiving substantial income from work. The percentage of aged persons who are eligible is expected to rise to over 70 percent by 1960.

THE COVERAGE OF THE PROGRAM

Approximately 75 million workers were covered by old-age, survivors, and disability insurance during the course of the calendar year 1957. An additional 1½ million people employed in the railroad industry were assured, through the close coordination of the railroad retirement and old-age, survivors, and disability insurance programs, benefits at least equal in amount to those that would have been payable if their railroad employment had been covered under the Social Security Act. Altogether, including State and local government and nonprofit employees for whom coverage is available on a group-election basis and members of the Armed Forces, nine-tenths of all persons in paid employment in the continental United States were covered or could have been covered by old-age, survivors, and disability insurance in June 1957.

Of the workers not eligible for coverage, about one-third were covered by other public retirement programs—Federal, State, or local. The remaining two-thirds—6 percent of the Nation's paid employment—were not covered by any public retirement program. Those without retirement protection under a public system consisted principally of self-employed persons whose annual net earnings were less than \$400 and of domestic and farm workers who did not earn sufficient wages from any one employer to meet the minimum coverage requirements of the law.

INCOME AND DISBURSEMENTS

Expenditures from the Federal old-age and survivors insurance trust fund during the fiscal year totaled \$6,665 million, of which \$6,515 million was for benefit payments and \$150 million, including Treasury Department costs, for administrative expenses. Total receipts were \$7,100 million including \$6,540 million in net contributions, \$555 million in interest on investments, and \$5 million in transfers from the railroad retirement account. Receipts exceeded disbursements by \$436 million, the amount of the increase in the trust fund during the year. At the end of June 1957 this fund totaled \$23.0 billion.

Total assets of the old-age and survivors insurance trust fund, except for \$766 million held in cash, were invested in United States Government securities as required by law; \$2.8 billion were invested in public issues (identical with similar securities owned by private investors), and \$19.5 billion were invested in securities of varying maturities issued for purchase by the trust fund. The average interest rate on all investments of this fund at the end of the fiscal year was 2.5 percent.

The Federal disability insurance trust fund was created by the Social Security Amendments of 1956. Contributions to this fund became payable starting in January 1957. Benefit disbursements began in August 1957. Assets of the disability trust fund at the end of the fiscal year totaled \$337 million, consisting of \$12 million held in cash, and \$325 million invested in 2.5-percent United States Government securities of varying maturities issued for purchase by the trust fund.

Administering the Program

The 1956 amendments imposed the greatest management challenge in terms of volume and complexity of workload that the Bureau has ever faced in a single year. The need to develop methods for the administration of new program provisions was coupled with the necessity to gear the organization to handle large workload increases with dispatch and with the least possible diminution in quality and service to the public.

The recruitment and training of new staff were among the first problems to be met. Personnel requirements measured against estimated increased workloads alone would have required the addition of about 7,000 fully trained employees. These requirements, however, had to be balanced against recruitment possibilities, capacities to train and absorb into production, overtime that could be used, and anticipated workload levels beyond 1957. By balancing these various factors, a recruitment objective of some 3,500 employees was established. This brought employment at the end of the fiscal year to approximately 21,560, a figure reasonably close to the staff needed for continuing Bureau operations in subsequent years.

An accelerated training program was used throughout the Bureau. Experienced employees were given training immediately on the amendments, with particular attention to the disability provisions. Emphasis was placed on partial training to equip new employees to handle specialized areas of work, and thus get quickly into production. Three-week central-office courses were given in Baltimore to equip new field employees with the knowledge essential in the claims process. More than 1,400 new district office employees received this intensive training during the fiscal year.

The Bureau took a number of other significant actions to gear its resources to the amendment requirements. Twenty new district offices were opened to provide more adequate facilities and better service to the public, bringing to 558 the number of full-time district offices in operation. The number of field contact stations was increased from 3,537 to 3,660, and additional space was acquired for

each of the six area offices. Through the use of public informational devices, it was possible to strike some balance between the receipt of claims on which payment was scheduled to be made quickly and the receipt of disability insurance claims which could not be paid by law until August 1957. The Bureau also deferred or gave low priority to certain areas of work.

In the first 6 months of the year, the Bureau kept the workload situation within planned control limits despite the receipt of 1,500,000 retirement and survivor claims applications in the district offices, almost twice as many as in the same period of the preceding year. The high point in the first 6 months, in the number of claims pending in the district offices (292,500) was reached in mid-October due mainly to the receipt of claims from women aged 62-64. At the end of December, the pending load was down to 260,000.

The most crucial period in the processing of retirement and survivor claims under the amendments came in the second half of the fiscal year. The extent of filing of claims after January 1, 1957, rose considerably above expectations. In January and February, embracing a period of 9 weeks, over 750,000 claims applications were received in the district offices. These tremendous workloads resulted in the largest number of pending cases in Bureau history and a substantial increase in processing times. The highpoint was reached in early February when 473,000 claims were on hand in the district offices.

The Bureau brought all its administrative forces to bear to get this emergency situation under control as quickly as possible. Measures which were adopted included the shifting of workloads and personnel between offices to meet workload bulges in certain parts of the country; the hiring of temporary and part-time clerical staff; transferring some of the adjudication activity normally performed in the district offices to the area offices; deferring certain types of district office nonclaims work to a later date; specialization in the use of personnel; and the extensive use of overtime. Through use of these emergency measures the district offices were able to reduce the pending load by the end of the year to about 200,000 claims, the operational goal established for that date.

The following actions were taken to implement the disability insurance benefit provisions of the 1956 amendments: renegotiation of State agency agreements; development of policies and procedures with the Office of Vocational Rehabilitation on provisions regarding acceptance of rehabilitation services; development of policies and procedures for disability benefit reductions for workmen's compensation benefits and other Federal benefits based on disability; development of plans and procedures for determining continuance or

cessation of disability; and development of alternative procedures for determining charges to the disability trust fund.

The first applications for disability insurance benefits and benefits for disabled children aged 18 and over were taken in district offices on October 1, 1956, with the first benefits for disabled children payable for the month of January 1957 and the first disability insurance benefits payable for the month of July 1957. As mentioned earlier, by the end of the fiscal year district offices had received applications for more than 300,000 disability insurance benefits and 45,000 claims for benefits for disabled children aged 18 and over. In the last several months of the year emphasis in the public information program was turned to the disability benefit provisions, and processing procedures were streamlined and accelerated. Over 100,000 checks were issued to disabled beneficiaries in August as payment for the month of July.

During the year the Bureau also issued about 744,000 original and duplicate account numbers to members of the Armed Forces covered for the first time by Public Law 881 (84th Congress). To achieve a balancing of work distribution, the job of issuing these accounts, normally done in the district offices, was transferred to the Division of Accounting Operations. The total number of original and duplicate account numbers issued during 1957 was 7,567,000.

Along with the planning and actions to meet the impact of the 1956 amendments, attention was given during the year to management improvement undertakings of varying scope and significance.

Large scale electronic processing equipment was used successfully during the year in operations dealing with the maintenance of earnings records, the reinstatement of incorrectly reported earnings items, and the computation of benefit amounts. In December, the Bureau reached a decision to secure an additional electronic data processing installation to be placed in operation early in fiscal year 1958. The additional machine will make it possible to eliminate existing electrical accounting machine listing and collating operations and punch-card file records of detailed and summary earnings. The earlier installation will reduce costs by about \$1,000,000 a year beginning in fiscal year 1958; the second installation by an estimated \$500,000, starting in fiscal year 1959.

In September 1956, procedures were established to combine monthly benefit checks to a husband and wife where one is entitled to old-age insurance benefits and the other to wife's insurance or dependent husband's insurance benefits in cases in which (a) both parties reside at the same address; (b) neither is incompetent; (c) neither voices any objection to the combination; and (d) no other reason exists that would make the combination undesirable. The combination was made

as new claims were awarded or as certain adjustment actions were taken for beneficiaries already on the rolls. Experience maintained to date indicates that public reaction to this combination is favorable and plans have now been made for the mass conversion of the separate payments remaining on the benefit rolls. These cases number 1,100,000. Savings to the trust fund resulting principally from reductions in the check writing and mailing costs of the Treasury Department will approximate \$1,000,000 a year.

Architectural planning for the new Bureau headquarters building on the outskirts of Baltimore has been completed. In addition to the amounts previously authorized, the Congress approved \$5,710,000 in additional funds for the construction of the building. This makes a total of \$31,080,000 which has been made available for this purpose. The new legislation contains an escalator clause to take care of changes in building costs after October 1, 1956. The contract for construction was signed on October 31, 1957.

Arrangements were completed for a review of Bureau operations by a small group of business leaders. This review, to be made in the first part of fiscal year 1958, has among its specific objectives: a review of the broad aspects of the process by which the Bureau discharges its responsibilities; identification of specific operations where any new techniques or methods used by industry could be adopted with resultant improvements in efficiency and economy; and recommendations as to whether the Bureau should seek outside assistance in the development of any proposed studies. The results of this review are expected to furnish valuable perspective and guidance to the Bureau in its administration of the program.

Total administrative costs for the program in fiscal year 1957 represented about 2 percent of contributions to the trust fund. The key to this low level of administrative cost is the fact that while the composite measurable workload of the Bureau has increased by 223 percent since 1950, personnel has increased by only 97 percent.

Legislative Developments During the Year

Even though major social security amendments had been enacted at the start of the fiscal year, wide public interest in the program was reflected in a continuance of legislative activity affecting the program. Six bills involving relatively small but important changes in the old-age, survivors, and disability insurance provisions received active congressional consideration during the last half of the fiscal year and were subsequently enacted into law by the Eighty-fifth Congress.

PROVISIONS OF THE 1957 AMENDMENTS

Changes in coverage of employees of State and local governments.— During 1957 three new laws (P. L. 85-226, P. L. 85-227, and P. L. 85-229) amended the coverage provisions as they apply to employees of States and localities.

P. L. 85-226 provides a general extension of the time during which retroactive coverage for prior years may be arranged under the State and local coverage provisions. Under previous law, coverage arranged before 1958 could begin as early as January 1, 1955; under the new provision, coverage arranged in 1958 or 1959 can begin as early as January 1, 1956. This law also permits old-age, survivors, and disability insurance coverage of policemen and firemen under retirement systems in Alabama, Georgia, Maryland, Tennessee, and the Territory of Hawaii. (Coverage of policemen and firemen under public retirement systems had been authorized by the 1956 amendments for only Florida, North Carolina, South Carolina, and South Dakota.)

Another provision of P. L. 85-226 extends to all interstate instrumentalities a provision, enacted in 1956, under which specified States may divide retirement systems into two parts and provide coverage under the Social Security Act only for the part consisting of the positions of those employees who desire coverage. This provision has made it possible for some members of retirement systems to obtain old-age, survivors, and disability insurance coverage even though a majority of the present members of their retirement system do not want such coverage. At the same time the old-age, survivors, and disability insurance system is protected against "adverse selection" in the long run because all new employees who enter positions originally covered by a "divided" retirement system must be covered under the Social Security Act.

The changes made by the other two new laws were also concerned with the "divided retirement system" provision. Under P. L. 85-227 the States of California, Connecticut, Minnesota, and Rhode Island were included with those previously authorized to divide retirement systems for purposes of securing coverage under the Social Security Act; this change increased to 13 the number of States (including Hawaii) that are named under the provision. P. L. 85-229 is designed to make it easier for retirement system groups to obtain old-age, survivors, and disability insurance coverage under the divided retirement system provision. It was formerly necessary to follow a procedure involving two separate polls of retirement system members where this provision was used. First, the members of the system expressed their desire for or against coverage under the Social Security Act. Then, after the required additional 90-day-notice

period, a referendum was held among only those members of the system who had already expressed a desire for coverage. The amendment allows the affected States and interstate instrumentalities to combine these two polls into a single vote which retains the principal features of the referendum provision, such as the 90-day-notice period.

Changes affecting disability provisions.—P. L. 85-109 made two changes in the disability provisions of the program. An amendment requested by the Department extends for 1 year—through June 30, 1958—the time within which disabled workers may file applications which will permit the beginning of a period of disability to be established as early as the actual onset of disablement even though that date is more than 1 year prior to filing. Disabled workers who would otherwise have lost valuable social security protection because they failed to file applications before the June 30, 1957, deadline in prior law were thus given a further opportunity to assure themselves of that protection.

P. L. 85-109 also modified the disability benefits offset provision. Under this provision, before it was amended, the disability insurance benefit under the Social Security Act had to be reduced by the amount of any periodic Federal benefit or Federal or State workmen's compensation paid on account of disability. The amendment specifically excludes veterans' compensation (compensation paid to a veteran by the Veterans Administration on account of a service-connected disability) from the periodic Federal benefits that cause disability insurance benefits under the Act to be reduced. The disability benefits offset provision continues to be applicable in cases involving veterans' pensions, which are paid on account of non-service-connected disability. There was no change in the offset provision as it applies to persons receiving benefits because of a disability that began in childhood.

Changes in coverage of ministers.—As a result of amendments made by P. L. 85-239, ministers who failed to file certificates to elect old-age, survivors, and disability insurance coverage under the self-employment provisions within the time prescribed by the prior law will have an extension of time (generally through April 15, 1959) within which to elect coverage. Under the amendments, ministers who elect coverage during the extended period will be covered retroactively for taxable years ending after 1955 in which they have net earnings from self-employment of \$400 or more, including earnings from the exercise of their ministry. Ministers (chiefly those newly ordained) who are eligible to elect coverage after April 15, 1959, will have retroactive coverage for only 1 year.

P. L. 85-239 also provides that a minister who has elected coverage shall, in determining his net earnings from self-employment, include

the rental value of a parsonage (or any allowance for the rental of a parsonage) and the value of meals and lodging furnished to him for the convenience of the employer. This provision recognizes that in many instances noncash remuneration received by ministers constitutes a significant portion of their total earnings; also, it assures that, for old-age, survivors, and disability insurance purposes, the noncash remuneration of the ministers affected (who are actually employees) will be treated much like the noncash remuneration of employees generally. For purposes of coverage, this provision applies to taxable years ending on or after December 31, 1957; for purposes of the retirement test under the program, however, the provision applies to taxable years beginning after August 30, 1957 (the date of enactment).

Another provision of this legislation relates to the crediting of remuneration of ordained ministers who were excluded from coverage as employees because they were in the employ of nonprofit church-related organizations and were in the exercise of their ministry but whose remuneration was erroneously reported as wages in 1955 and 1956. It was found that these mistakes were usually the result of confusion as to whether certain of these ministers, usually performing teaching or administrative duties, were engaged in the exercise of their ministry. Under the new provision the remuneration in question will be credited in the same manner as correctly reported wages for old-age, survivors, and disability insurance purposes to the extent that the employer or employee tax was not refunded before August 31, 1957.

Benefits for alien survivors of servicemen who died of service-connected disabilities.—P. L. 85-238 provides that the provision for suspending benefits of certain aliens outside the United States, enacted as part of the 1956 amendments, is not to apply to alien survivors where the individual on whose wages and self-employment income the benefits would be payable died while serving in the Armed Forces of the United States or died as a result of disease or injury incurred or aggravated in the service. The new provision applies only to survivor benefits (monthly benefits and lump-sum death payments) and not to retirement or disability insurance benefits.

Although P. L. 85-238 applies to nonresident alien survivors of all servicemen dying in service or from service-connected causes, under present practice relating to recruitment of aliens into the armed services it will affect primarily a small number of survivors of Filipinos who serve in the Navy and Coast Guard, mainly as messmen.

The Department of Defense and the Department of Health, Education, and Welfare favored the enactment of the provision of P. L. 85-238 dealing with alien survivors of servicemen because it was necessary in order to coordinate the coverage of servicemen under old-age, survivors, and disability insurance with the Servicemen and

Veterans' Survivor Benefits Act. The latter act establishes dependency and indemnity compensation for survivors of servicemen and veterans at a level which presumes the concurrent payment of benefits under old-age, survivors, and disability insurance.

Change in the requirements for entitlement to spouse's benefits.—P. L. 85-238 also removes the requirement that for entitlement to wife's, husband's, widow's, or widower's insurance benefits the spouse must have been a member of the worker's household or must have been receiving regular support payments from him or the worker must have been under order by a court to contribute to the spouse's support. Monthly benefits will be paid to wives, widows, and young widows with children on the basis of legal relationship alone. This change will give the protection of the program to a wife who was deserted by her husband and who for some reason had not secured a court order requiring the deserting husband to contribute to her support.

Under the change a spouse will meet the definition of wife, widow, husband, or widower (1) if the courts of the State of the worker's domicile at the time of his death or (if he is alive) at the time of the spouse's application for benefits would find that the spouse and the worker were validly married at such time, or, (2) if they would not so find, if the spouse would nevertheless have the right to share as a spouse in the intestate personal property of the worker under the law of such domicile. These changes are effective for monthly benefits payable beginning with September 1957.

A saving clause was incorporated in the law so that parents of a deceased worker who had already filed proof that they were supported by the worker would not be denied parent's insurance benefits because a widow or widower became eligible as a result of the new provisions. (Parent's insurance benefits cannot ordinarily be paid to a dependent parent of a worker who was survived by a child, a widow, or a dependent widower who might eventually qualify for benefits based on the worker's earnings record.) Saving clauses were also incorporated which provide that neither a parent's benefit nor the benefit of a spouse who becomes entitled to benefits as a result of these changes shall be reduced because of the entitlement of the other, even though the total benefits to the family exceed the maximum that could otherwise be paid.

COMBINED REPORTING FOR SOCIAL SECURITY AND INCOME-TAX WITHHOLDING PURPOSES

The plan for integrating old-age, survivors, and disability insurance wage reporting with annual reporting of income taxes withheld was resubmitted to the Eighty-Fifth Congress by the Department of Health, Education, and Welfare. The bill embodying the pro-

posals (H. R. 8309) also contains the necessary provisions for putting the definitions of insured status and related provisions on an annual rather than a quarterly basis.

The plan would make it possible to eliminate the detailed quarterly wage reports now filed by employers for social security purposes. The information needed would be obtained from the reports of each employee's wages filed annually by employers on withholding-tax statements (Forms W-2). The Hoover Commission had estimated that elimination of the quarterly reports would save employers about \$22 million a year.

The substitution of annual for quarterly reports would also bring about substantial reductions in the workload of wage items to be processed by the Bureau of Old-Age and Survivors Insurance. It is estimated that in fiscal year 1960, nearly 262 million wage report items would have to be processed for social security purposes under the present quarterly reporting provisions. Under annual reporting, this number would be reduced by at least one half. (The reduction would not be three-fourths, as might be expected, because a large number of workers are not employed by the same employer in all 4 quarters of a year.)

The plan also provides that the Treasury Department and the Department of Health, Education, and Welfare might enter into an agreement under which Forms W-2 filed by employees with their income-tax returns would be sent to the Bureau of Old-Age and Survivors Insurance to be matched mechanically against the forms filed by employers. This matching process would improve tax administration through the discovery of errors in reporting of wages for both income-tax and social security tax purposes.

COORDINATION OF TVA RETIREMENT SYSTEM WITH OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE

The Social Security Amendments of 1956 authorized the extension of the program's coverage to members of the retirement systems of the Tennessee Valley Authority and the Federal Home Loan Banks, subject, in each case, to approval by the Secretary of Health, Education, and Welfare of a plan for coordinating the existing staff retirement system with the Social Security Act system. The plan submitted to the Department by the Tennessee Valley Authority to modify its retirement system and provide an equitable basis, as required by the law, for coordinating the system with old-age, survivors, and disability insurance was approved by the Secretary on December 28, 1956. As a result of this legislation members of the Tennessee Valley Authority retirement system became the first group of civilian employees of the Federal Government to be covered by both old-age, survivors, and

disability insurance and a supplementary Federal staff retirement system.

RETIREMENT SYSTEM OF FEDERAL HOME LOAN BANKS

The Secretary was unable to approve proposed coordination plans that were submitted to the Department by the Federal Home Loan Bank Board. Since the law specified June 30, 1957, as the deadline for an approved plan of coordination, some 200 members of the Banks' retirement system continue to be excluded from coverage under the Social Security Act.

SIMPLIFICATION STUDY

The Bureau moved forward with its project of developing legislative proposals to make the program easier for the public to understand and comply with, and easier for the Department to administer. The project also seeks to improve the program so that it will be more acceptable to the public as fair and equitable.

The initial phase of this study was to examine two areas which have considerable complexity and which have been of much interest to the public—the retirement test and the computation of benefits. Work groups of Bureau employees have been formed for each of these areas. These groups are staffed with people who have had firsthand experience in the administration of the law, technicians skilled in the evaluation of program matters, and employees with legal training. Because of the intricate and delicately balanced considerations involved, many months of concentrated study will be necessary before recommendations can be made to the Congress on how to simplify these two areas within the framework of the existing program. In the meantime, plans are being made for the examination of other complex phases of the law.

Financing the Program

In modifying the schedule of contributions under the old-age, survivors, and disability insurance program at the time it enacted the amendments in 1956, Congress again made clear its intent that the program be self-supporting from contributions of covered workers and employers. The revision in the schedule was arrived at after careful review of long-range actuarial cost estimates prepared for use of the congressional committees in their legislative considerations.

OLD-AGE AND SURVIVORS INSURANCE BENEFITS

The level-premium cost of old-age and survivors benefits after 1955, on an intermediate basis, assuming interest at 2.6 percent and earnings

at about the levels that prevailed during 1955, is estimated at 7.43 percent of payroll (after adjustments to allow for administrative expenses and interest earnings on the existing trust fund). The level contribution rate, equivalent to the graduated rates in the law, is estimated at 7.23 percent of payroll, leaving a small actuarial insufficiency of 0.20 percent of payroll. The old-age and survivors insurance benefit system may for practical purposes therefore be said to be in actuarial balance.

DISABILITY INSURANCE BENEFITS

The Social Security Amendments of 1956 established a system for financing disability insurance benefits which is entirely separate from the financing of old-age and survivors insurance benefits. The level premium cost of the disability insurance benefits and the applicable administrative expenses on an intermediate basis is 0.42 percent of payroll. Contribution income has been specifically allocated to finance these benefits; this income is equivalent to 0.49 percent of payroll, thereby producing an actuarial surplus of 0.07 percent of payroll.

The difficulties involved in making exact predictions of the actuarial status of a program that reaches into the distant future are widely recognized. If different assumptions as to, say, interest, mortality, retirement, disability, or earnings had been used, different results would have been obtained. Accordingly, no one set of estimates should be looked upon as final. The Department, in carrying out its policy of continually reexamining the long-range cost estimates of the program in the light of the latest information available, is now in process of a complete review and revision of its cost estimates.

Public Assistance

Effect of the 1956 Amendments

The implementation of amendments to the public assistance titles of the Social Security Act passed in 1956, which included some of the most fundamental changes in the public assistance programs since their inception, provided a major focus of activities at both the Federal and State level during the year. The impact of increased program responsibility resulting from these legislative changes was immediate and substantial.

The new provision to help States extend and broaden medical care for public assistance recipients through separate Federal sharing in costs paid directly to suppliers of medical care services required con-

siderable preparation on the part of both Federal and State agencies. The clarification of the objective of public assistance as including both financial assistance and other welfare services to help recipients achieve increased self-care, self-support, and to strengthen family life, resulted in States' taking stock of the scope and level of the services they were already providing and in planning for their further development.

Similarly, a companion provision which authorized Federal grants to States for training public assistance personnel to deal constructively with complex problems involving dependency and seriously affecting family life resulted in stepped-up efforts by the States in their on-going training programs, and in the development of long-term plans for increasing the availability of qualified persons to work in the public assistance program.

As a result of raising the Federal share of State public assistance payments and the maximum payment subject to participation, effective October 1, 1956, through June 30, 1959, all but a few States increased individual payments by \$3 to \$4 a month for the needy aged, blind, and disabled; and by \$1 to \$2 per person receiving aid to dependent children. The availability of additional Federal funds thus made it possible for many States to make long-overdue adjustments in payments in relation to increased living costs.

Amendments broadening the aid to dependent children program were implemented through legal or administrative actions taken by 42 states to add certain relatives (first cousins, nephews, and nieces) to those with whom the needy child may live and receive federally aided assistance and by 31 States to obtain Federal sharing in assistance expenditures for children aged 16 and 17 without regard to whether they are regularly attending school. Both provisions were effective July 1, 1957.

*Trends in Caseloads and Expenditures*¹

In June 1957, 5.9 million persons, 3.4 percent of the total civilian population, received either federally aided categorical public assistance or State and/or locally financed general assistance. The total number of persons assisted increased 198,000 or 3.4 percent from June 1956 to June 1957. The greatest increase occurred in the number of persons receiving aid to dependent children (148,000). Smaller increases occurred in the number receiving general assistance (41,000), aid to the permanently and totally disabled (26,000), and aid to the

¹ Caseloads, averages, and total expenditures in all programs except general assistance are based on data which include vendor payments for medical care and cases receiving only medical care.

blind (2,600). In old-age assistance, the number of recipients decreased by 20,000. Drought conditions in some sections of the country, a strike in the steel industry, and the largest increase in living costs in 6 years undoubtedly contributed to the need of some individuals for public assistance.

Total expenditures for assistance payments from Federal, State, and local funds were \$2,969 million during fiscal 1957, an increase of \$187 million or 6.7 percent over expenditures in the preceding year. The rise was due in part to the availability of additional funds authorized by the 1956 amendments. The largest increases in payments occurred in old-age assistance, \$90 million; and aid to dependent children, \$61 million. The Federal share of expenditures was \$1,505 million. Assistance payments for the past year represented about 0.9 percent of personal income payments in the Nation during 1956.

Old-age assistance.—The number of persons receiving old-age assistance in June 1957 (2.5 million) was 0.8 percent lower than in June 1956, with a corresponding decline in the proportion of persons aged 65 or over in the country receiving old-age assistance—168 per 1,000 in June 1957 compared with 173 per 1,000 a year earlier. Although caseloads were lower in 42 States, the national annual decrease of 20,000 was the smallest in 6 years. The national average monthly payment for old-age assistance was \$58.66 in June 1957, an increase of \$4.37 from the previous June. Average payments, exclusive of Puerto Rico (\$7.99) and the Virgin Islands (\$18.53), ranged from a low of \$28.67 in Mississippi to a high of \$94.15 in Washington.

Aid to dependent children.—Increases during the year in the number of families receiving aid to dependent children were fairly substantial for the Nation and for a majority of the States. The 647,200 families receiving assistance in June 1957 represented a 5.5-percent increase; and the 1,831,900 children, a 7.3-percent increase over June 1956. Although there was a seasonal decline between July and October, the national caseload increased in subsequent months of the fiscal year. The national average assistance payment in June 1957 was \$96.52 per family (\$26.04 per person), an increase of \$7.25 per family (\$1.69 per person) from the previous June. Average payments per family, exclusive of Puerto Rico (\$12.72), ranged from \$28.18 in Mississippi to \$150.12 in Wisconsin.

Aid to the blind.—There was a small but steady rise (2.5 percent) in the total number of persons receiving aid to the blind (from 105,800 in June 1956 to 108,400 in June 1957), even though 27 States had lower caseloads at the end than at the beginning of the year. The average assistance payment for all States in June 1957 was

\$63.87, an increase of \$3.45 from the previous June. Average payments, exclusive of Puerto Rico (\$7.91), ranged from \$37.77 in West Virginia to \$116.78 in Washington.

Aid to the permanently and totally disabled.—Recipients of aid to the permanently and totally disabled numbered 283,900 in June 1957, compared with 258,300 in June 1956. The 9.9-percent increase was largely the result of the relative newness of the program and the initiation of a new federally aided State program in Kentucky, which brought to 46 the number of States administering such programs. The national average payment per recipient in June 1957 was \$59.10, an increase of \$2.38 from the previous June. Average payments, exclusive of Puerto Rico (\$8.68) and the Virgin Islands (\$19.81), ranged from \$24.60 in Mississippi to \$116.91 in Connecticut.

General assistance.—About 294,000 cases received State and/or locally financed general assistance in June 1957, an increase of 4,000, or 1.5 percent from the preceding June. Decreases and increases over the year were divided about equally among the States. The national average payment per case in June 1957 was \$54.90, an increase of \$2.83 from the previous June. Average payments for States reporting on a comparable basis ranged from \$12.28 in Alabama to \$78.29 in New York.

OASI BENEFICIARIES RECEIVING SUPPLEMENTARY ASSISTANCE PAYMENTS

The number of aged beneficiaries of old-age, survivors, and disability insurance who receive old-age assistance to supplement their benefits continues to increase. In February 1957, nearly a fourth (22.2 percent) of the 2.5 million old-age assistance recipients were receiving such assistance to supplement their insurance benefits. The number (555,300) of recipients of old-age assistance also receiving insurance benefits in February 1957 represents an increase of 39,000 or 7.4 percent from the preceding February.

The national average old-age assistance payment for recipients receiving both insurance and assistance in February continues to be less than for those receiving only assistance—\$48 compared with \$60.77. About 18 percent (a little over \$26.6 million) of the total amount expended for old-age assistance was paid to the needy aged receiving both assistance and insurance benefits.

In contrast to the increasing number of aged receiving both insurance benefits and assistance payments, the number of families receiving aid to dependent children to supplement insurance benefits showed a slight (2 percent) decline in February 1957 from the number in the preceding February. The 31,900 families receiving both insurance

benefits and assistance payments represented 5.1 percent of all families receiving aid to dependent children. As in old-age assistance, the average assistance payment to families receiving both types of payments was less than to families receiving only assistance. The national average assistance payment in February to families receiving both types of payment was \$75.75 compared with \$96.39 for families receiving only assistance.

Major changes in old-age and survivors insurance made by the 1956 amendments to the Social Security Act will extend benefits to more people. These changes include reduction of the retirement age for women, extension of child's benefits to disabled children aged 18 or over, and the addition of disability insurance benefits. The immediate effect of these amendments on the public assistance program, however, is not expected to be very great.

Program and Administrative Developments

During the year, priority was given by the Bureau of Public Assistance to work necessary to implement the 1956 amendments to the public assistance titles of the Social Security Act. This included, for example, the issuance of information explaining the amendments to interested groups and individuals, consideration of their implications, exploration of problems that could be anticipated, identification of major policy issues that needed to be resolved, and the development of pertinent Federal policy and recommendations. In addition, fiscal and administrative procedures were developed to effect the necessary changes in grants to States, and technical assistance was provided to State agencies in carrying out the purposes of the new legislation.

This work was carried on along with the Bureau's continuing emphasis on the development and maintenance of sound and efficient public assistance programs, including review of administrative costs in relation to program objectives, cooperation with national public and voluntary agencies in areas of mutual concern and interest, and improvement in internal Bureau management.

Although the full effect of the potentials for significant developments in the assistance and services available to needy persons made possible by these amendments will not be realized until the States have had more time to put the legislation into operation, substantial progress is already evident. Developments in some of the program areas, such as medical care, welfare services, and staff training, which involve Federal, State, and local cooperation and planning, are of special interest.

IMPROVING MEDICAL CARE FOR PUBLIC ASSISTANCE RECIPIENTS

Traditionally, public welfare agencies provided some medical care through staff physicians, by operating institutions giving medical care to the indigent, or by paying for the medical care given to needy persons. Under the Social Security Act as passed in 1935, Federal financial participation was available in the costs of medical care when included in the monthly payment to the recipient within the limits of the Federal maximum on the monthly assistance payment. However, the amount of medical care that could be provided to assistance recipients under this provision was limited, and its nature and extent varied greatly between States, and often between localities in the same State.

Yet the cause of dependency for many is directly related to disabling effects of illness. For example, of the 2½ million persons over 65 years of age receiving old-age assistance, nearly half are 75 or over—an age group with a high incidence of chronic illness. Disability itself is a basic eligibility condition for the nearly 284,000 needy persons receiving aid to the permanently and totally disabled, for the 108,000 receiving aid to the blind, and for the approximately 484,000 children and 125,000 adult caretakers receiving aid to dependent children whose need is due to the physical or mental incapacity of a parent. It also plays a large part in the need of many of the 294,000 cases receiving State and/or locally financed general assistance.

The increasing need for medical care and its higher cost resulted in an amendment to the Social Security Act in 1950 which broadened the definition of “assistance” to include payment for medical care or other remedial care made directly to the suppliers of such services. The amount allowed for medical care, however, still had to come within the specified individual matchable assistance payment maximum, as previously. To provide greater flexibility in meeting high medical expenses in individual cases, some public assistance agencies used a pooled fund—a prepayment arrangement—into which a fixed monthly payment was made for each recipient, and from which was paid the costs of medical care for individual recipients. The averaging of costs through the pooled fund helped to some extent in meeting the higher medical care costs in individual instances.

In fiscal year 1957, only about 10 percent (\$288 million) of the total (\$3 billion) expended for public assistance, including general assistance, was spent for medical care payments made directly to the suppliers of such services. Only about a fifth of this amount came from Federal funds; most of the vendor payments were made by States with the greatest resources, with a high concentration in only

a few States. For example, a little more than half the vendor payments made for the aged in June 1956 were in three States—New York, Illinois, and Massachusetts. A few States made vendor payments financed entirely from State and local funds.

To increase the availability of medical care for needy persons, the Social Security Act was amended again in 1956 (Public Law 880, 84th Congress) to permit Federal sharing in vendor payments for medical care separate from the money payment. This amendment provides for separate Federal sharing in a State's total expenditures for medical care paid directly to suppliers of medical services in behalf of assistance recipients up to one-half of the sum of \$6 times the number of adult recipients and \$3 times the number of child recipients per month. As a result, most States will be able to provide more medical care for the needy, and the use of an average in determining the amount of the Federal share will make it possible to meet larger medical care expenses in individual cases.

The provision for additional Federal matching in medical care costs, beginning July 1, 1957, provided the stimulus for extensive planning and preparation on the part of both Federal and State agencies during the year. At the Federal level, discussions were held with representatives of various groups to interpret the provisions of the amendment and to get the benefit of their specialized knowledge and suggestions for its implementation. These groups included the American Medical Association, American Dental Association, American Pharmaceutical Association, American Hospital Association, the Christian Science Church, American Nursing Homes Association, and the National Social Welfare Assembly; medical staff in the Department of Health, Education, and Welfare; and State public welfare directors and other State staff. In June, representatives of interested national organizations and staff of State public assistance agencies came together in Washington to discuss the problems and questions which had arisen around the implementation of this amendment.

The States reviewed existing medical care provisions to see how they could best be broadened and strengthened, and new provisions were planned. In 12 States, legislation was enacted to authorize making vendor payments for medical care; and in six others, similar legislation was considered. Special interest was shown by States which previously had provided little or no medical care; many were interested in planning for payment of hospital care.

Further legislation was enacted in 1957 because a few States which had been able to make substantial vendor payments for medical care within the Federal matching maximums on individual assistance payments would have been adversely affected by the limits of the new

provision for separate Federal sharing in medical care expenditures. As a result, Public Law 85-110 was passed in July 1957 to give the States an option with respect to the basis for claiming Federal participation in their vendor payments for medical care. Before May 16 of each year or less often if desired, States can elect for the following fiscal year to receive Federal financial participation for combined money and vendor payments within the specified individual matchable assistance payment maximum, as previously, rather than to claim separate Federal matching for vendor medical care payments under the 1956 provision for separate matching of medical care expenditures. The new law amends section 305 of Public Law 880. Two States exercised this option for fiscal year 1958 for some of their programs.

While the provision for separate Federal matching in medical care costs will not make it possible for States to finance a comprehensive program of medical service for assistance recipients, it has enabled States with no statewide provision for medical care to begin to pay the cost of some medical services, and others to expand their existing medical care provisions. Within several months after the effective date of the amendment, 35 States planned to use Federal funds in separate vendor payments for medical care. This includes 11 utilizing Federal funds for the first time in providing medical care and 11 using the additional Federal money to extend their existing medical care programs.

Six States have not yet taken action, although two are working on plans with their respective departments of health. The remaining 12 States have indicated that they cannot yet benefit by this amendment either because they lack enabling legislation or appropriations, or because of other problems which must be worked out first. However, some of these States, as well as some others with vendor payment plans limited in coverage, expect to continue to include an amount for certain kinds of medical services in the money payment.

Sixteen States will use a pooled-fund arrangement (including 12 which had used this plan previously); 16 States will make direct payments to the suppliers of medical care services; and 3 States will use prepayment arrangements such as a contract for service with a State health department, State medical association, or a hospital insurance plan. For example, one State is entering into contracts with Blue Cross-Blue Shield to provide hospitalization and physician's services in the hospital for recipients of aid to the blind and aid to dependent children programs. Another State is contracting with the State medical society to provide physician's services, drugs, and certain other items on a prepayment capitation basis. Some of these arrangements are being tried on an experimental basis.

Some of the new plans are from States with limited funds and provide mainly for hospitalization for life-endangering illnesses. Where hospitalization is available through existing facilities or programs, some States are beginning with payments for doctors, drugs, and nursing-home care. As more experience is gained in determining cost figures and in handling other administrative aspects of this program, and as more State money becomes available, some of these States may be able to extend their coverage of services.

STRENGTHENING SOCIAL SERVICES FOR NEEDY PEOPLE

All those who come to the public assistance agency are struggling with problems of inadequate income. The definitions of the groups receiving federally aided assistance mean that, for many, this is further compounded by other serious personal problems such as those related to old age, illness, physical or mental handicap, or family disruption. Public assistance agencies have long recognized that without appropriate help such problems will often result in deteriorating situations harmful to both the individual and the community.

Within the limits of their capacity and availability of community resources, many public assistance workers have been assisting these needy individuals to find and use their own strengths and other available resources to develop their best potentials for more satisfying and independent living. For example, workers arrange for necessary medical care and other rehabilitation services within the public welfare agency or offered elsewhere. They provide services that enable the needy person to remain in his own home and with his family and friends as long as possible, plan other kinds of custodial care when necessary, and arrange for specialized services and home-helps that enable persons no longer in need of institutional care to return to normal living patterns in the community. Some workers also help with more intangible but equally serious emotional problems, such as a disturbed relationship between parent and child, tensions threatening family solidarity, or feelings of inadequacy blocking the way to independent activities.

The extent to which these and other social welfare services are being provided, however, varies greatly across the country. Some agencies lack staff time and/or professional skill to provide many services, and supporting community resources are often missing or very limited. Yet heartening advances have been made in the number of people helped to greater self-sufficiency; some savings have also resulted through decreased assistance costs. Special projects have also demonstrated the benefits of cooperative effort between public and voluntary agencies and other groups in the community.

For example, several projects were set up to relieve pressing problems that stem from the increased number of aged people in nursing homes and mental hospitals. By providing outside living arrangements and such aids as homemaker service, visiting nurse services, and friendly visiting, some aged persons no longer in need of sheltered care were able to return to the community. In addition to greater personal satisfactions in home living for the individual and freeing institutional beds for those needing them, some savings also resulted through reduction in expenditures for costly institutional care.

Other demonstration projects used a team of experts—often including doctors, rehabilitation and employment counselors, and social workers—to consider latent capacities and resources of handicapped individuals. This approach has shown substantial results especially with incapacitated parents of children receiving aid to dependent children. Some were helped to become self-supporting, while others embarked on plans for at least partial rehabilitation.

The value of such services was recognized and affirmed in the 1956 amendment to the Social Security Act which endorsed Federal sharing in expenditures incurred by a State public assistance agency in providing, in addition to financial aid, other staff services to help assistance applicants or recipients achieve increased capacity for personal and economic independence and strengthen their family life. The passage of this amendment, in turn, provided the stimulus for renewed and strengthened activities on the part of the State agencies.

Effective July 1, 1957, State plans were to describe the services made available by the State agency and the steps taken to assure maximum utilization of similar or related services furnished by other agencies. This requirement provided a focus for evaluating services already provided and planning for their extension and increasing effectiveness. It also resulted in clarification of the responsibility of staff at all levels for the provision of such services, more emphasis on effective cooperation with other agencies, and added emphasis on participation in community planning to develop new resources.

In developing policy and guide materials to implement the "services" amendment, the Bureau enlisted the help of a National Advisory Committee including representatives from State and local public welfare agencies, national voluntary agencies, graduate schools of social work, and staff from other units of the Department. A policy statement on "Social Services in Public Assistance" was developed; and a monograph on "The Role of the Caseworker" was prepared as Part I of a series on *Services in Public Assistance*, and Part II—"The Role of the Agency"—is in process.

Similarly, a 2-day National Conference on Homemaker Service was held in June 1957 under the joint auspices of the Children's Bureau,

the Bureau of Public Assistance, and the Public Health Service, to stimulate the further development of homemaker service. Effective results have already been achieved in its use to release family members caring for assistance recipients to seek gainful employment; to permit the chronically ill, the emotionally handicapped, the physically disabled, and the aged to remain in their own homes as long as possible; or to maintain a home for dependent children where the mother is ill or otherwise temporarily unable to care for them. A monograph on "Homemaker Service in Public Assistance" was prepared discussing the problems best served by homemaker service, the other types of home-help needed, and the ways in which this specialized agency resource might be made more widely available.

In addition, under the auspices of the National Social Welfare Assembly, a meeting was held with representatives of national voluntary agencies to consider how voluntary and public social welfare agencies can work together in developing and providing the services needed by children receiving aid to dependent children. A report on "Services in the ADC Program—Implications for Federal and State Administration" also was prepared, summarizing State comments on the earlier draft report on "Services in the ADC Program" prepared jointly by the Bureau of Public Assistance and the Children's Bureau.

The States' Vocational Rehabilitation Council Committee on Relationships with Public Assistance also met in Washington in April 1957 with representatives of both the Bureau of Public Assistance and the Office of Vocational Rehabilitation to explore ways in which State agencies of both programs can work more cooperatively and effectively. Similar discussions were held between State vocational rehabilitation and public assistance agencies.

Planning for the most effective use of all these resources was reflected in many State social services plans, along with clarification of the problems and needs for which the State offers casework and counseling services. Some State plans provide special help to the handicapped, homemaker service for the ill and aged, and/or foster care for ill or aged adults unable to live alone but not in need of custodial care. Although there is great variation in the range of problems identified on which States will offer services, certain common areas were recognized by most States—the effects of financial need, illness, disturbed family relationships, and lack of education and training for employment. To insure the progressive development of their social services some States have also established methods to assess the range and nature of problems identified, and the adequacy of agency and community resources in meeting them.

EFFORTS TO INCREASE AVAILABILITY OF QUALIFIED STAFF

With increasing recognition of the need for social services has come greater awareness of the direct relationship between the quality of services provided and the skill of staff providing them. Yet only about 20 percent of staff in social work positions in public assistance agencies have any social work training, and only 4 percent have completed professional training.

To increase the number of qualified persons available to provide the quality of services needed in administering public assistance today, a 1956 amendment authorized the use of additional Federal funds, effective July 1, 1957, to assist the States in meeting the costs of training personnel employed or preparing for employment in public assistance programs. This permits States to provide financial aid both to individuals and institutions for training in social work and other professional and technical fields related to public assistance administration.

In anticipation of additional Federal funds for training purposes, intensive effort was made by the States during the year to expand and strengthen their training programs. Proposed policy for operating under this amendment and principles underlying long-range staff development plans developed by the Bureau were also used by the States in developing their training plans. Many of the States requested Bureau consultation and written materials on staff development.

Emphasis in all the States was placed on reevaluation of current staff development plans and development of long-range plans, including the use of funds for graduate social work education for current employees. Some of the States added training consultants to their staffs, and others increased the number of persons assigned to training jobs.

Based on study of the education and experience of current staff, the minimum educational requirements for beginning positions were raised in some States, and recruitment plans were developed in others. Many of the States held short-term courses to strengthen the skill of administrative and supervisory staff in helping workers to administer medical care provisions and provide other social services. Some of the States increased the use of faculty from schools of social work to conduct short-term institutes within the agency.

Most of the States increased the number of persons granted educational leave for graduate professional training during the year and made plans for expanding this number in succeeding years. Legislation was passed in several States authorizing the use of funds for training purposes. Appropriations made specifically for training enabled a few States for the first time to develop plans for educational

leave. Consideration was given also to the need for readjustment of salary scales in relation to increased competence of staff, in order to retain staff being given professional training.

Closer working relations between State public welfare agencies and schools of social work resulted from the increasing use of faculty members in conducting institutes within the agency, and from the increasing number of staff attending schools of social work. For example, in the New England area, a committee of State agency staff and faculty from five professional schools are working toward improving the professional performance of public assistance and child welfare personnel and toward defining the level of performance expected.

In addition to working directly with schools of social work, Bureau staff also worked with the Council on Social Work Education in developing teaching materials for use in training for work in public welfare programs. They also participated in developing materials for the use of the Council in a curriculum study designed to improve the quality of training for social work positions in public welfare programs, including the development with the North Carolina Department of Public Welfare of a statement of problems in public assistance.

Several institutes were held by the Bureau for State staff on the use of the group process in training programs. A seminar on this subject was held in June 1957 under the joint sponsorship of the Children's Bureau and the Bureau of Public Assistance, with representation from 26 States; and a monograph on "Group Leadership in Staff Training" was also issued under their joint sponsorship.

The momentum in staff development activities gathered during the year has been seriously hampered by the omission of funds for training in the 1958 Federal appropriation. The States' interest in moving ahead in this area, however, is reflected in the plans of many States to carry through in the coming year some of the activities previously considered, although necessarily on a much more limited scale.

OTHER ADMINISTRATIVE DEVELOPMENTS

Nationwide increases and variation among States in the cost of administering public assistance and congressional consideration of measures affecting the use of Federal funds in matching State and local expenditures pointed to the need for study of underlying factors.

Since people receiving public assistance are dependent because of financial need compounded by other personal or social problems, the work of State and local agencies has been increasingly directed both

toward dealing with problems which created the dependency and helping individuals move to a fuller use of their own strengths and capacities. In addition to determining initial and continuing eligibility for assistance and the extent of need for financial assistance, the worker also assesses the individual's need for, and provides or arranges for the provision of, other services that will assist him to deal constructively with his economic and social problems. This broader concept of the purpose of public assistance, under which most States are operating even though in varying degrees, received congressional recognition and approval through the "services" amendment to the Social Security Act in 1956. This amendment also recognized that the costs of administration would include expenditures necessary in providing these services.

During the year, therefore, intensive study was made of the component elements included in State and local expenditures for administering assistance to provide a basis for the development of proposals relating to administrative costs which would meet the realities of current program objectives, as well as carry out responsibility for proper and efficient administration.

Continuing efforts also have been made by regional and departmental staff in advancing more efficient and effective administration of public assistance programs through review of State plan and administrative practice, and providing technical assistance to the States. For example, during the year, administrative reviews were conducted in 23 States, covering 920 local agencies. Emphasis was placed on eligibility determination, with study in other program areas on a selected basis including the application process, appeals and hearings, rehabilitation and other welfare services, State supervision of local agencies, and determining disability in the aid to the disabled program. Findings from these reviews were used in strengthening program operations both in the States and in the Bureau.

Technical assistance and consultation also continued to be provided to the States on request in both program and administrative areas. In addition to the continuing help given by regional staff, during the year, for example, 104 consultations were provided by specialists in such areas as: implementation of new legislation on medical care, training, and social services; team activities and other aspects of the aid to the disabled program; need determination and standards of assistance; administrative costs; staff training; various aspects of the aid to dependent children program; administrative and fiscal standards; and methods for quality control and improvement of various aspects of public assistance administration.

In addition to the issuance of reports mentioned above, other publications processed for distribution during the year included: *Illness and Disability—Selected References for Public Assistance Caseworkers*; *Digest of Special Studies Relating to Public Assistance*; *Trend Report—Graphic Presentation of Public Assistance and Related Data*; and *National Manual—Emergency Financial Assistance and Emergency Clothing*.

DEFENSE WELFARE SERVICES

Under a delegation from the Federal Civil Defense Administration, the Bureau completed its second year of work in planning for emergency financial assistance and emergency clothing in the event of an enemy attack. The signing of agreements between the Social Security Administration and 43 State departments of public welfare during the year provided a firm base for establishing a nationwide organization through which welfare needs of people could be met promptly during an emergency. The issuance of a national manual for emergency financial assistance and emergency clothing provided the guideposts for continuing State and local civil defense welfare activities.

A national advisory committee broadly representative of the retail clothing industry, national clothing trade associations, and public and voluntary social agencies helped in planning this aspect of the program. Working relationships with other governmental agencies having delegations from the FCDA, particularly the Department of Labor and the Business and Defense Services Administration of the Department of Commerce, contributed to the better coordination of civil defense welfare activities.

Termination of the appropriation to the FCDA for delegated civil defense activities necessitated the discontinuance as of June 30 of the Bureau's planning activities in relation to the emergency financial assistance and clothing programs. However, with the Department's willingness to consider resumption of these activities if funds again become available, the Bureau is maintaining liaison with the FCDA and is continuing staff work involved in planning for the continuity of essential functions required by the Office of Defense Mobilization.

SERVICES FOR REPATRIATED AMERICANS

Since World War II the Bureau has been cooperating with the Department of State in the repatriation of American citizens. Although relatively few become stranded in foreign countries in peacetime, the hardships of some are great. The Department of State makes loans to pay for return transportation but not for emergency medical care or maintenance abroad, nor for aid after reaching this

country. Yet many of these individuals no longer can claim residence in any State and are not eligible for public aid or public hospitalization.

During the calendar year 1956, 42 cases from 22 countries were referred to the Bureau by the Department of State for help in meeting individual or family problems. Since Federal funds are not available for this purpose, the Bureau, through its regional offices, tried to locate other available resources to provide the assistance and services needed. These include, for example, reception services at the port of entry, making contacts with relatives and friends, arranging for medical or hospital care, providing temporary income maintenance, or providing help with family relationship problems.

In the fall of 1957 when a small group of Americans were evacuated from trouble areas in the Middle East, the Bureau was given a special allocation from the President's Emergency Fund and requested by the Department of State to meet the evacuees at the airport and help them on to their destinations. Recognizing that problems relating to repatriation of Americans will become more acute in a period of international tensions, the Bureau has been working with the Department of State and the Department of Defense in developing plans and legislative proposals for more adequate meeting of peacetime repatriation needs and for prompt activation of stand-by plans for reception and provision of services to evacuees during an emergency.

Children's Bureau

A broad mandate to "investigate and report upon all matters pertaining to the welfare of children and child life" was given the Children's Bureau in the act of 1912 creating the Bureau. To its investigative and reporting functions was added an additional responsibility under title V of the Social Security Act of 1935, as amended—that of administering grants to States to assist them in extending and improving their health and welfare services to children, especially in rural areas and areas of special need.

Improving the conditions under which children are born and grow up has been the concern of the Children's Bureau through 45 years of service. To this end it makes studies and reports, works with public and voluntary agencies in an advisory capacity, develops guides and standards for service, and administers the grants for maternal and child health, crippled children's services, and child welfare services.

Some Facts and Figures About Mothers and Children

For the third consecutive year, the number of live births in 1956 exceeded 4 million. Crude birth rates have stabilized since 1950 at about 25 per 1,000 total population but fertility rates in relation to women of child-bearing age continue to increase, and birth rates for third and fourth children indicate the possibility of larger families.

The United States child population under age 18 increased from 47 million in 1950 to an estimated 57 million in 1956. By 1965, the number is expected to rise to about 70 million.

Infant mortality is reported provisionally for 1956 at 26 deaths per 1,000 live births, the lowest rate ever recorded, but many States still have relatively high rates, particularly for nonwhite infants.

About 320,000 infants were born prematurely in 1956. Sixty percent of neonatal deaths and 44 percent of all infant deaths in 1955 were reported as associated with prematurity. In 1955, almost 4 percent of reported pregnancies that reached 20 weeks or more in duration resulted in a stillborn infant or death in the neonatal period.

Maternal mortality has declined steadily since 1929, from a rate of 69.5 maternal deaths per 10,000 live births to an estimated 3.8 in 1956.

In 1955 in 17 percent of the births to nonwhite mothers and in over 8 percent of the births to mothers in rural nonmetropolitan counties no medical attendant was present at delivery. These proportions, however, are lower than in previous years.

Accidents are the leading cause of death for children. They took the lives of 16,707 children aged 1 to 19 in 1955 and accounted for 40 percent of the mortality in this age group.

Among other deaths, cancer has become the leading cause for death of children 5 to 19 years of age, while influenza and pneumonia lead in the preschool group. Next in importance among all deaths of children 1 to 19 years old are congenital malformations and diseases of the heart, including acute rheumatic fever.

The number of children born out of wedlock during 1955 was estimated at 183,300, a 4-percent increase over 1954. Of these, 64,200 were white children and 119,200 nonwhite. About 73,000 unmarried mothers were under 20 years of age.

Juvenile delinquency continues its upswing. Police arrest data reported by the Federal Bureau of Investigation for 1,160 cities show that arrests of juveniles under 18 increased 17.3 percent from 1955 to 1956. In 1956, juveniles represented 66.4 percent of all persons arrested for auto theft, 53.9 percent for burglaries, 50.4 percent for larcenies. Preliminary juvenile court data, too, show a rise in delinquency cases between 1955 and 1956, possibly by as much as 20 per-

cent. This is the eighth consecutive year of increase. Roughly 2 percent of the child population aged 10 through 17 are estimated to be involved each year in delinquency cases that reach court.

Family income in the United States reached an all-time high in 1955, with a median money income of \$4,421 per family. But families with four children had a median money income of \$4,360; families with five children, \$3,622; and families with six or more children, \$3,434. In 1955 families with four or more children constituted only 9 percent of all families, but they contained 31 percent of the country's children.

The mother's work outside the home has been one of the major factors in rising family income in recent years. Between 1948 and 1953 the proportion of married women living with their husbands and with preschool age children increased from 11 to 16 percent. In March 1956 more than two million such mothers with children under age 6 were in the labor force.

Children With Special Needs

Though all children are its concern, the Children's Bureau continues to recognize certain groups as being under special handicap and in special need.

The adolescent in contemporary society is under increased pressures and though the vast majority grow up to be responsible adults, a sufficient number engage in delinquent behavior to cause concern all across the country. The Children's Bureau has continued through 1957 its drive on delinquency, concentrating especially on developing standards for care and on training needed personnel.

The children of migrant agricultural workers continue to be a concern of the Children's Bureau though progress in improving their lot has been made. A study in Florida made possible through a special grant has borne fruit in a service project in two counties. Colorado, also, with the stimulus of a special grant, has gradually extended and improved its program. In Pennsylvania child welfare services to migrant children have been considerably expanded. In a number of other States there is evidence of increased awareness of the problem and of willingness to accept more responsibility for these children.

In appropriating \$16 million for maternal and child health grants for the fiscal year 1957, the Congress earmarked \$1 million for special projects for mentally retarded children and the House Committee on Appropriations recommended that approximately \$1 million additional also be used on the problems of mentally retarded children. By the end of the year projects had been approved in 26 States by the

Children's Bureau, with commitments totaling about \$1,300,000. In addition, State health departments have reported budgeting over \$500,000 of other Federal maternal and child health funds for children with mental retardation.

Adoptive placement of children without benefit of prior social agency services has received special attention. Emphasis is being given to the social, medical and legal protections needed by natural parents, the child and adoptive parents. Social workers from various States attended a Children's Bureau sponsored meeting to consider "The Role of the Social Agency in Adoption."

Federal Interdepartmental Committee on Children and Youth

The Congress places responsibility upon a number of the agencies of the U. S. Government for programs which contribute in varying degrees to the social well-being of children and youth. In 1948 the President requested these agencies to form an Interdepartmental Committee on Children and Youth to assist each other in keeping informed about program developments, to work together for greater effectiveness in program planning, and to strengthen working relationships between the Federal Government and the States. This triple assignment has been carried out during fiscal year 1957 by the regular monthly meetings of the full Committee, the work of its subcommittees, and an informational exchange with the State and Territorial Committees on Children and Youth. Thirty-four Federal agencies are represented on the Committee which meets monthly from September to June. The Children's Bureau furnishes the secretariat for the Interdepartmental Committee on Children and Youth.

The Interdepartmental Committee was a cosponsor of the Joint Conference on Children and Youth held in Washington, D. C., in December 1956 at which over 200 representatives of State, national voluntary, and Federal agencies participated.

Programs of the Bureau

RESEARCH IN CHILD LIFE

The Bureau's small research staff has the chief responsibility of carrying out the legislative mandate "to investigate and report upon all matters pertaining to the welfare of children." In addition to its own studies and those conducted jointly with others, the Bureau seeks to stimulate research in child life by other agencies by formulating the questions requiring study and by developing research methods and by advising agencies engaged in such research.

Technical research under way during the year included development of a method for determining unit costs in institutional care of children and analysis of methods and findings of evaluative research. Two large-scale studies were launched to examine, respectively, the outcome of independent adoptions and the reasons for the large number of staff losses in child welfare and private family service agencies. Work continued on assembling information about programs and services for mentally retarded children. Improvement in hospital statistics on maternity and newborn infant care was stressed in the development of a joint research study of the American College of Obstetricians and Gynecologists, the American Academy of Pediatrics, the Connecticut State Department of Health, and the Children's Bureau.

Throughout the country juvenile delinquency is being studied from both psychological and sociological perspectives—the former focusing primarily on the inner personality dynamics of individual children, the latter directing attention to the effects of situational or environmental social and cultural factors. In an attempt to bridge the gap between these two approaches, the Bureau published a report of a conference of experts from both fields.

The Bureau receives annual statistical reports from official State agencies regarding State and local health and welfare services for children. It also receives certain statistical information on voluntary child welfare services, on the work of juvenile courts and public training schools for juvenile delinquents, and on adoption. These reports are occasionally supplemented by special statistical inquiries. During 1957 the following publications based on such statistical data were published: *Some Facts About Public State Training Schools for Juvenile Delinquents*, *Training Under the Maternal and Child Health and Crippled Children's Programs*, *Crippled Children's Services at the Mid-Decade*, *Selected Child Welfare Expenditures of State and Local Public Welfare Agencies*, *Juvenile Court Statistics*, *Maternal and Child Health Services*, *Adoption in the United States and Its Territories*, and *Public Programs for Crippled Children*.

As a part of its research interpretation activities, the Bureau has been reviewing its role in parent education as an interdisciplinary movement, with special reference to current issues and problems requiring new approaches. Three issues of *Research Relating to Children* under a new plan of coverage were published. This series is an inventory of current research to help investigators in the field of child life keep informed about studies being conducted in their areas of special interest.

The research staff worked with or provided technical consultation requested by State health departments and other health agencies on

studies concerning subjects such as prematurity, emotionally disturbed children, mental retardation, neurological defects of infancy and childhood, and attitudes of professional health workers. State welfare departments and other welfare agencies were assisted in studies on such problems as family life education, value of a central register for juvenile delinquents, optimum caseload for child welfare workers, administrative uses of child welfare reports, and evaluation of juvenile delinquency control measures.

MATERNAL AND CHILD HEALTH SERVICES

All of the States, the District of Columbia, Alaska, Hawaii, Puerto Rico, and the Virgin Islands receive Federal funds to extend and improve services for promoting the health of mothers and children.

The Congress for the year 1957 increased the appropriation for maternal and child health to \$16,000,000 and earmarked \$1,000,000 to be used only for special projects for mentally retarded children.

The ongoing programs of the State maternal and child health agencies continue to make a major contribution to the health of the Nation. Preliminary and incomplete figures from State maternal and child health reports show that about 224,000 mothers received services at maternity medical clinics in 1956. In addition, health nurses served some 430,000 mothers before or after delivery.

About 445,000 infants and 640,000 other children received health supervision through well-child clinics. In addition, health department programs provided nursing service for about 2,660,000 infants and other children.

Almost 1,248,000 children were vaccinated for smallpox and nearly the same number were immunized for diphtheria by State and local health departments through grants provided by the maternal and child health programs. Polio immunization through these programs reached ten and a half million children.

To better prepare personnel for maternal and child health programs a number of States carried out institutes and special training projects.

Of unusual significance is the First Illinois Congress on Maternal Care sponsored by the new Illinois Committee on Maternal Welfare, held in February 1957. The Illinois Committee on Maternal Welfare was a pilot project of the American Committee on Maternal Welfare designed to invite the active participation of the several professions concerned with achieving optimum maternal and newborn care. The Illinois Department of Health played an active role in the planning and execution of this program.

An institute attended by 150 physicians and nurses on Maternity Newborn Care sponsored by the Montana State Health Department, Montana State Medical Society, and the Montana State Nurses Asso-

ciation was held June 9-12, 1957. The focus of the institute was on the medical and nursing clinical aspects of obstetrical and newborn care in respect to complications in pregnancy, abnormal labor, and conditions causing stress in the newborn.

Representatives from 17 schools of nursing with degree programs met in Atlanta, Georgia, for a workshop on The Maternal and Child Health Component of the Basic Curriculum for Nurses. This workshop was sponsored by the Southern Regional Education Board, the Georgia State Department of Public Health, and the Children's Bureau.

The Utah State Health Department with the University of Utah sponsored an institute for nurses on child growth and development in June as a follow-up of the Regional Institute held at the University of Wyoming, June 1956.

Special emphasis has been given to the development of programs to a long-neglected segment of our child population—the mentally retarded. On the basis of the increased maternal and child health funds earmarked by Congress for this group of children, the Children's Bureau approved 26 special demonstration projects to be operated as part of State health department programs in maternal and child health. These are designed to:

1. Provide early casefinding, evaluation, diagnosis and treatment, planning, and follow-up care, particularly for preschool mentally retarded children and their families.
2. Evolve patterns of service and methods of providing services which State health departments can utilize.
3. Provide training and orientation for a variety of professional personnel.

In addition to special project funds, regular maternal and child health funds in many States have gone into programs for mentally retarded children.

Through regional and State conferences on mental retardation professional personnel, official State agencies and representative parents' groups in at least 28 States were involved in institutes on this problem. During the year the Denver and Dallas Regions each had conferences on mental retardation, and the Charlottesville and Atlanta Regions held one jointly. Among the States which had State meetings were: Arkansas, Colorado, Iowa, Kentucky, Minnesota, Mississippi, Virginia, and Washington.

In addition, an institute on mental retardation for public health nurses at Boston University and one for social workers at Tulane University were utilized to evolve patterns for similar institutes being planned and geared to a variety of professional disciplines. Most States having special projects have provided for orientation of project personnel and maternal and child health staff through visits in existing special facilities serving the mentally retarded.

There has been renewed interest by maternal and child health directors in programs for the improvement of hospital care of maternity patients and their newborn infants. The planning in most instances is a cooperative venture with the appropriate committees of the State medical societies, State chapters of the Academy of Pediatrics, the official State agency responsible for hospital licensing, the State hospital association, and, in some instances, the staffs of individual or local groups of hospitals. With an increasing number of births occurring in hospitals, and most of the prenatal care provided by private physicians or hospital clinics, this is a logical focus of emphasis in any efforts to improve the quality of care and to lower the morbidity and mortality rates.

The intensification of interest at the State level is in part a result of the cooperative efforts at the national level. The Children's Bureau has had a representative on the American Academy of Pediatrics Committee which, with the cooperation of the American College of Obstetricians and Gynecologists, the American Public Health Association, the American Hospital Association, and the National League for Nursing, developed "Standards and Recommendations for Hospital Care of Newborn Infants—Full Term and Premature," and this year revised it. The Children's Bureau has also been represented on a committee of the American Committee on Maternal Welfare (now the American Association for Maternal and Infant Health), which with a number of professional organizations is in the process of developing a "Guide to Hospital Care of Maternity Patients."

Eighty-three public health nurses in North Carolina have completed short courses in home and farm accident prevention over the past 3 years. These courses have been sponsored jointly by the State Board of Health and the University of North Carolina. This is considered a significant accomplishment within the State since accidents, particularly those of home and farm, are one of the leading causes of death in North Carolina children.

CRIPPLED CHILDREN'S SERVICES

All of the 53 States and Territories, with the exception of Arizona, are participating in the crippled children's program. Though the State agency auspices vary, the objective is uniform, namely: to locate children who require care, and to provide restoration through diagnosis, medical and surgical treatment, and alleviation of unfavorable social and psychological influences which adversely affect the degree and duration of the disability. The appropriation for crippled children's services is \$15,000,000, the amount authorized.

Preliminary figures from State reports indicate that a new peak was reached in 1956 in the number of handicapped children served

under federally aided programs. Some 290,000 children were cared for during the year. Most of the children (232,000) were seen in clinics; about 60,000 received physician's services through home or office visits. Children who were hospitalized numbered approximately 52,000. Convalescent home care was given to the smallest group, around 3,800.

A significant development during the past year is the trend toward the establishment of diagnostic and treatment centers for children—children with all kinds of handicaps—in medical schools. These centers are based in the pediatric department but available to the centers are all medical specialties; medical social work; nursing; psychology; physical, occupational, and speech therapy; and a variety of other disciplines, including special education.

Both the Arkansas and Louisiana maternal and child health divisions employed consultants in safety and accident prevention, and the Poison Control Center in Oklahoma is continuing to develop its service.

The Michigan Child Amputee Program has established a training course for physicians, occupational therapists, physical therapists, and medical social workers. This is the first child amputee course to be offered in the country. As a result there is awakened interest in this group of handicapped children on the part of other State agencies. While the Grand Rapids Center is accepting many severely handicapped children, including a number of quadruple amputees, the crippled children's agencies in other States are gradually assuming more responsibility for the less severely handicapped amputees as knowledge from the Grand Rapids Center is being disseminated to professional personnel in other States and countries. Washington is one of the States which has established a special crippled children's clinic for amputees during the year.

Several States are beginning to develop services for children with nephrosis, cystic fibrosis, and other selected metabolic and degenerative diseases in which the prognosis can be materially improved through early recognition and continuous and proper medical treatment and follow-up. Such services have been initiated in Connecticut, Massachusetts, New Hampshire, New Jersey, and Pennsylvania.

During the past year the number of States accepting children with congenital heart disease under their crippled children's program has continued to increase, and the number of States which have their own centers which have been approved for cardiac surgery has also increased. Some States use the State center for cases requiring simpler cardiac surgery and the Regional Cardiac Centers for the more complicated cases. Children of the Territory of Guam are now served through the Regional Cardiac Center in California.

Among the States which have initiated programs for children with congenital heart disease this year are Alabama, Missouri, and Kansas.

A few centers which have been approved for cardiac surgery by their respective States are: Vanderbilt University Hospital, University of Tennessee Hospital, St. Louis University Hospital, and University of Missouri Hospital.

In addition to the University Hospitals in Minneapolis, Minnesota, two other centers were added to the Minnesota Regional Heart Center program—the Mayo Clinic, Rochester, Minn., and Mt. Sinai Hospital, Minneapolis, Minn. A major problem which arose in these centers was that of obtaining a large amount of fresh blood on the day of the operation. There were not enough paid donors available and the lack of donors was holding up operations. Largely as a result of newspaper publicity plans were worked out for obtaining voluntary donors from Minnesota State Prison, St. Cloud Reformatory, and other correctional institutions.

Increased activity in development of services for children with rheumatic fever and congenital heart conditions has been a marked trend in crippled children's programs in Alabama, Florida, Georgia, North Carolina and Tennessee. Because of mutual interest of the Children's Bureau and of the Public Health Service, there have been joint activities with State heart programs. A symposium on rheumatic fever sponsored by the maternal and child health and crippled children's divisions of the North Carolina State Health Department was held at Chapel Hill during the year.

State health departments and crippled children's agencies continue to show extension and improvement of speech and hearing programs. The program in Arkansas is now to be housed in the Children's Hospital and is thereby established as part of a general children's medical service. A new program is being developed by the Texas maternal and child health division, and the New Mexico program is being reorganized following the return from training of their audiologist. The Tennessee Conference on Handicapped Children highlighted the speech and hearing program in that State, and the audiology training program of the Bill Wilkerson Speech and Hearing Center which is affiliated with Vanderbilt University is being expanded, aided by a grant from the Children's Bureau, through the State health department. California, with a special project grant, has started a program at the John Tracy Clinic which is devoting particular attention to the problems of central nerve deafness in children. Indiana, Wisconsin, and Ohio are States which provided fellowships for training in audiology. The Colorado special project in hearing conservation started last spring. The program is emphasizing the development of preventive and treatment services in rural parts of the State and is making a particular effort at the casefinding of preschool children.

In several States cognizance has been taken of the radiation hazard to public health. In Connecticut enabling legislation for control of

sources of ionizing radiation by the State Health Department was passed. New York has a new regulation prohibiting the use of radioactive materials, X-ray machines, and similar radiation-producing equipment on human beings by anyone not licensed to practice medicine, osteopathy, dentistry, or podiatry. In North Dakota, also, the Health Department was given responsibility for the control of radioactive developments in the State.

CHILD WELFARE SERVICES

The Children's Bureau has continued to work with public and voluntary, national, State, and local welfare agencies in planning for better social services for children. One part of this work is the joint planning with welfare agencies in the 48 States, Alaska, Hawaii, Puerto Rico, Virgin Islands, and the District of Columbia for the most effective use of Federal grant-in-aid funds for strengthening and extending child welfare services.

The method for providing social services for all children in need of them in all geographical areas continues to be a major concern of the Bureau. The importance of structure, organization, and administration in the provision of public social services for children is increasingly recognized. State child welfare advisory committees, planning commissions, and youth councils are taking a broader look at the total framework within which services are provided and are asking for help in relation to principles of organization and administration and in effective planning for the coordination of services.

State welfare agencies continue to use Federal funds for child welfare services available under the grant-in-aid program primarily for personnel and professional education. Still, the lack of a sufficient number of qualified child welfare staff and difficulties in recruitment present increasing problems in strengthening and expanding social services for children. In spite of salary increases in many States, salaries for social workers generally seem to be too low to compete with industry, education, and other fields. Some States are facing the fact that fully trained and competent staff in adequate supply will not be available for many years to come and are developing long-range recruitment methods. Arkansas, Louisiana, and Maine are employing college juniors during the summer months. This is in effect a paid orientation to the public social services with the hope that upon graduation from college such students may be interested in further training and employment in the social work field.

In Florida, a special committee on recruitment has been appointed with representatives from the departments of education and welfare and from the fields of public relations, counseling, youth guidance, and industry. The personnel officers of the State department of public welfare have been working with high schools in the prepara-

tion of material on social work to be included in textbooks. They have also been developing a rating scale for high school senior aptitude tests to indicate the potential aptitude for social work. This recruitment project involves long-range plans beginning with the eighth grade social study textbooks.

In an attempt to improve the quality of services provided to children, many States are providing special workshops for supervisory staff. A seminar on "Group Leadership in Staff Training" in public welfare agencies sponsored jointly by the Children's Bureau and the Bureau of Public Assistance was held in June 1957. Thirty-six State supervisors and consultants carrying responsibility for staff development in 26 States attended.

State public welfare departments are giving increasing consideration to the kinds of services needed in strengthening the child's own home. Interest in the development of programs of services to children in their own homes, particularly protective services, has continued with even greater momentum this year than last year on national, State, and local levels. Several sessions at the National Conference on Social Welfare were devoted to services to children in their own homes and to protective services. State conferences of social work have increasingly included institutes on services to children in their own homes. The requests to the Children's Bureau for special consultation in this area have greatly increased.

More and more, State and local welfare agencies are interested in developing homemaker services as a way of keeping children in their own homes. During the year, the Children's Bureau issued a new *Directory of Agencies Providing Homemaker Services in the United States and Canada* which included 128 agencies in 89 cities and 31 States. A small meeting on homemaker service under the auspices of the Children's Bureau, the Bureau of Public Assistance, and the Public Health Service was called on June 17-18, 1957. Nurses, doctors, and social workers discussed how to stimulate an expansion of homemaker services throughout the country; considered the kind of situations that require help in the home by an outside person; defined the types of home helps needed; specified some of the knowledge and skills involved; and outlined steps to be taken in planning for a national conference on homemaker and related services.

In considering how to assure the best possible care to children of unmarried mothers, child welfare staffs in the States have been faced with a dilemma. On the one hand they recognize that the continuation of independent placement of babies for adoption results, to a great extent, from the lack of services for unmarried mothers. On the other hand, great expansion of such services with-

out good public understanding of the needs of these children frequently produces public reaction against all unmarried mothers.

Considerable progress is being made in getting social workers, doctors, lawyers, nurses, and other professional groups to consider together their responsibilities in providing services to unmarried mothers and services in adoption. Connecticut, Maine, Rhode Island, and Vermont have ongoing committees with broad representation of physicians, lawyers, clergymen, social workers, and others including adoptive parents studying the need for more adequate State and local community adoption programs. A conference in Estes Park, Colorado, in September 1956, sponsored by the Colorado Medical School, the State health and welfare departments in the surrounding region, and the Children's Bureau, brought together about 90 representatives of the medical, legal, and social work professions to consider how the knowledge and skills of each could be brought to bear in protecting children placed for adoption.

Statistical reports on adoptions (covering the calendar year 1955) show that of the children adopted by nonrelatives, 56 percent were placed by social agencies and 44 percent were placed independently. Public interest in adoptions and in practices of social agencies has continued with an increase in the number of articles in popular magazines and number of programs on adoptions on television and radio.

Interest in the foster-care needs of children of minority groups has increased. The project called MARCH in San Francisco for recruitment of adoptive homes for children in minority groups has continued. A number of States, including the Middle Atlantic and Middle Western, have been giving special attention to the needs of Negro children. In South Carolina the State Department of Welfare has developed a new adoptive service for hard-to-place children. Colorado, Montana, and Wyoming have continued their efforts to find adoptive homes for handicapped children, older children, and children from mixed races or minority groups. In Colorado a series of newspaper articles about 51 of these children brought immediate and warm response from the public in the form of over 100 letters and 300 telephone calls from interested families in Colorado and surrounding States.

In addition to these many problems in regard to adoptions, State and local communities are requesting help and advice in regard to adoption legislation, fee charging in adoption service, and the establishment of a State adoption resource exchange.

In nonadoptive full-time foster-care programs, child welfare staffs are being encouraged to use foster care as a temporary arrangement until the child can be returned to his own family or placed in an adoptive home. The recruitment, selection, and development of fos-

ter family homes for children with special needs such as disturbed children and children who are physically handicapped are of major concern. Many agencies are looking carefully at the size of caseloads and board rates and are attempting to identify and measure the costs of foster-care services. An examination of the nature of "purchase of care" from voluntary agencies by public agencies and the responsibilities involved for both the public and voluntary agencies is the center of a great deal of attention.

Increase in commercial day-care facilities is reported in certain sections of the country, especially in the Southeastern States where rapid industrialization has occurred. Here the need for day-care services is the most outstanding gap in services. The welfare departments have struggled to meet this need and have taken considerable initiative through their child welfare licensing responsibility to raise the standards of day-care services. Three of the Southeastern States have two or more State staff members who are devoting full time to this service. Tennessee has six staff members giving full time to the development of day-care services.

In North Carolina, Maryland, and Virginia work on licensing day-care facilities is beginning. In Arizona and Louisiana the State welfare departments have been given new responsibility for licensing group day-care facilities. Minnesota and Missouri have issued up-to-date standards for day-care centers.

In institutional care of children, the progress varies. In most States there is real concern not only for improving the quality of institutional care but also for providing small specialized institutions for certain groups, such as emotionally disturbed, delinquent, and retarded children. By and large, however, plants are being improved, standards are being adhered to, and emphasis is gradually being placed on program and special services for children, such as psychiatric care and specialized medical care.

The limited usefulness of traditional institutions and foster-family homes for adolescents has prompted increasing experimentation with agency purchased or rented group homes. Recent ventures of this kind have been introduced or considered in California, Connecticut, New York, North Carolina, and Tennessee and in a number of other States.

Schools of Social Work are providing help in the improvement of institutional programs. The University of North Carolina School of Social Work has established a three-fold program of consultation, in-service training, and research for child-caring institutions in the Southeastern States. St. Louis University School of Social Service established in June 1957 a combined field and classroom curriculum for house parents employed in institutions in the St. Louis area.

During the year real progress has been noted in the way States are moving ahead in taking responsibility for consultation to and licensing of voluntary agencies and institutions. A number of States have issued new standards for child-placing agencies, institutions, maternity homes, day-care centers, and foster homes. Three workshops on licensing were conducted under the leadership of the Children's Bureau.

In all the New England States, public and voluntary health, education, and welfare agencies and organizations are working with organized parent groups in the interest of better health, education, and welfare programs for the mentally retarded child. In some States this cooperative effort has been focused on the need for improved institutional services and facilities; in others on family counseling and the development of camps and day-care services, and in still others, on special classes and vocational training and employment.

Colorado, Utah, and Wyoming participated in the regional workshop on services to mentally retarded children held in February under the sponsorship of the Colorado State Health and Welfare Departments, the Colorado Medical School, and the Children's Bureau. A similar regional conference was held in Dallas. Child welfare staff in these States are particularly desirous of incorporating modern concepts in the field of mental retardation into their in-service training for social workers and to develop joint efforts between physicians, educators, and social workers in meeting the needs of mentally retarded children and their parents.

Definite and continuing progress is evident in States in cooperative efforts among public and voluntary agencies. For example, in both Connecticut and New Hampshire, State-wide voluntary associations have spearheaded moves for better legislation, for foster-home finding, and for general interpretation of the needs of children.

Publications completed during 1957 were: *Child Welfare Services—How They Help Children and Their Parents; Meeting Family Need Through Homemaker Service; Homemaker Service, 1956—A Directory of Agencies in the United States and Canada; Educational Leave in Public Child Welfare Programs* (Child Welfare Reports, No. 6); *Child Welfare in Wisconsin: A Picture of a Program* (Child Welfare Reports, No. 7); *Foster Care, 1956* (Child Welfare Reports, No. 8); *Group Leadership in Staff Training* (Children's Bureau and the Bureau of Public Assistance); and *Proposals for Drafting Principles and Suggested Language for Legislation on Public Child Welfare and Youth Services*.

JUVENILE DELINQUENCY SERVICES

For the eighth consecutive year reports show a rise in juvenile delinquency—percentage-wise faster than our juvenile population.

The Children's Bureau is giving consultative service to States and communities in relation to juvenile and family courts, probation services, police work, training of personnel in the law enforcement and correctional fields, social group work, and community organization activities in relation to juvenile delinquency.

Interest in State and local programs for the control and treatment of juvenile delinquency continues at a high level. In a number of States legislation has been proposed or passed which provided for separate agencies or for units within established agencies to administer services for delinquent children. A number of States have revised their juvenile court laws. Other States have added consultants to staffs of State agencies in areas such as probation services, institutional care, and community organization.

There is also considerable activity in the establishment of new or reactivation of old State and local committees or commissions for communication, joint planning and coordination of services and activities in relation to juvenile delinquency.

The use of forestry camps as treatment facilities is increasing. Camps have been established in at least 10 States, with five others planning such facilities. New construction is underway with six States building new training schools and a number of others expanding and renovating existing facilities.

The emphasis on the training of staff continues to be great in the probation, institutional, and police fields. Bureau consultants were involved in joint planning and leadership in various training institutes.

A workshop for staff responsible for training personnel in correctional institutions for juvenile delinquents, supported by a grant from the American Legion Child Welfare Foundation, was held at Rutgers University in April. Joining with the Bureau as cosponsors were the National Association of Training Schools and Juvenile Agencies, the National Probation and Parole Association, the Council on Social Work Education, and Rutgers University. The report of the workshop will include a formulation of new ideas regarding in-service training in correctional schools.

A 4-day national conference on Youth Groups in Conflict held in May attracted over 200 persons from 22 States. The National Social Welfare Assembly, United Community Funds and Councils of America, and the National Association of Social Workers joined with the Children's Bureau in sponsoring this conference. In recent years, programs to reach and help the members of hostile, antisocial youth

gangs have multiplied rapidly across the country. An increasing amount of agency time, money, and personnel has been going into these programs. There has not yet been much formulation of theory, practice, or built-in research to guide programs or to measure effectiveness. The conference proceedings will be published.

The Children's Bureau continued to work closely with the Bureau of Indian Affairs in relation to law enforcement activities and to care of Indian children in correctional institutions. Discussions were held with representatives of the Bureau of Old-Age and Survivors Insurance in relation to the use of benefits for support of children in correctional institutions and with representatives of the American Institute of Architects concerning developments relating to the construction of correctional schools. Cooperative work with the National Council of Juvenile Court Judges in the development of standard juvenile court and family court acts has continued.

Institutions Serving Delinquent Children—Guides and Goals was published this year, as were articles written by staff members.

INTERNATIONAL COOPERATION

The cooperative program with the International Cooperation Administration of the State Department is continuing, with a moderate increase in persons sent to this country for training by that organization. The World Health Organization and the United Nations continue to refer people from other countries to us for observation and training.

During the year the international staff of the Bureau has planned and arranged training programs for 78 long-term trainees and observers and 156 short-term visitors. The trainees were in programs 12 months or more, the observers 2 to 6 months, and the short-term visitors a few hours to 2 months. Of the 78 long-term trainees and observers, 51 were in the health field and 27 in the welfare field. In the health field, 21 physicians took courses in public health with a specialty in maternal and child health, nine physicians took graduate work in pediatrics, and two took graduate work in child psychiatry. Seventeen nurses were trained in pediatric, maternity, or orthopedic nursing. Two dentists had graduate training in pedodontics. In the field of child and youth welfare there were 13 trainees in child welfare, three in group work, and seven in juvenile delinquency prevention and treatment. Four social workers received training in medical social work.

Of the 78 trainees and observers, 53 came through the International Cooperation Administration, 11 through the World Health Organization, 13 through the United Nations, and one on her own. The long-term trainees came from 34 countries, the short-termers from 53.

The maternal and child health and child welfare specialists recruited and backstopped by the Bureau contributed to programs in nine countries. During the year two pediatric nurse educators, a nurse midwife, and a maternal and child health physician left for assignments to Latin American countries. At the end of the year two specialists returned from Latin America after very successful experiences—one a nurse midwife in Mexico, and one a medical social worker in Panama. Both made a great contribution to the development of their respective professions in these countries, and both have left behind them an organized program with trained, competent native persons in charge.

The Chief of the Bureau served as United States representative on the Executive Board of the United Nations Children's Fund (UNICEF). Also, the Assistant to the Chief for Program Development visited eight countries in the Eastern Mediterranean and South East Asian areas to see maternal and child health services aided by UNICEF. For one part of the trip she was loaned to ICA to take part in a conference on nursing education in Iran, and at another point was a Special Adviser to the United States Delegation at the meeting of the Western Pacific Region of WHO in Manila.

Federal Credit Unions

As general business activity continued upward throughout the fiscal year, Federal credit union operations advanced to new high levels in savings, membership, loans to members, assets, and number of active units. On June 30, 1957, outstanding charters totaled 9,022; of this number, there were 8,592 credit unions actually in operation, 343 in process of liquidation, and 87 which had received a Federal charter but had not yet commenced operations. The 8,592 operating Federal credit unions reported aggregate assets of more than \$1.6 billion, or 19 percent more than the total a year earlier. Membership increased from 4.3 million in mid-1956 to almost 4.8 million on June 30, 1957, a gain of 11 percent. Members' savings (shares) in Federal credit unions rose 18 percent, from \$1,239 million on June 30, 1956, to \$1,464 million at the end of the current fiscal year, while average shareholdings moved up from \$288 to \$307 on June 30, 1957. Loans outstanding to members of Federal credit unions stood at \$1,157 million as the fiscal year ended, an increase of \$211 million, or 22 percent, over the amount a year earlier.

Although inflationary pressures on the Nation's economy have been in evidence for some time, prompting measures by the Federal government to combat the trend, Federal credit union activities cannot be characterized as inflationary. Savings have always outpaced loans

to members. The \$1,157 million in loans outstanding on June 30, 1957, represented 79 percent of shares and 71 percent of total assets of Federal credit unions. By encouraging borrowers to continue to save while they are still repaying their loans from the credit union, and by stimulating saving by nonborrowers as well, the thrift aspect of credit union operations is emphasized. As a consequence, money taken out of circulation in the form of savings has exceeded the money put into circulation in the form of borrowing in every year since the inception of the Federal credit union program.

Encouragement of thrift has always been a major function of credit union operations. The habit of saving is instilled in the members by the educational efforts of the officials in the form of personal contact and distribution of literature explaining the functions and objectives of the credit union. While some individuals undoubtedly join the credit union only when they need a loan, many others have developed the habit of saving through the credit union, and many of them would very likely have accumulated no savings whatsoever were it not for the accessibility of the credit union at their place of employment, church or fraternal group, or in their own community.

In the 23 years since passage of the Federal Credit Union Act on June 26, 1934, Federal credit unions have weathered periods of recession and war and have emerged today in a period of unprecedented business activity in a stronger position than they were when the need was believed greatest. Arising out of the ashes of one of the worst depressions in the Nation's history, the credit union movement continues to serve a need for provident and productive loans at reasonable rates of interest, a need which has not diminished over the span from depression to prosperity. Another major function of credit unions—promotion of thrift—is just as important today as it was in the earliest days of our history when our forefathers so assiduously followed the principle of “waste not, want not.”

Research and Development

The Bureau of Federal Credit Unions is responsible for the chartering, examination, and overall supervision of all Federal credit unions, and for examination of credit unions chartered under the District of Columbia credit union law. During fiscal year 1957, the Bureau issued 692 charters to newly organized groups, and conducted 7,115 examinations among established groups. On June 30, 1957, Federal credit unions were in operation in all 48 States, the District of Columbia, Alaska, Hawaii, Canal Zone, Puerto Rico, and the Virgin Islands.

Dissemination of information about credit union operations is achieved through issuance of periodic special reports to credit union officials and Bureau staff, and through distribution of the Bureau's annual *Report of Operations*. Instructional materials for use of the officials and others are prepared and distributed by the Bureau from time to time. Noteworthy examples of this latter type are the *Supervisory Committee Manual*, *Credit Committee Handbook*, *Federal Credit Union Handbook*, and the *Accounting Manual for Federal Credit Unions*.

A special questionnaire survey, designed to ascertain the purposes for which loans were made to members during 1956, was completed during fiscal year 1957. On the basis of reports from nearly a fourth of the Federal credit unions in operation at the end of 1956, a trend was indicated toward purchase of consumer durables, particularly automobiles. Despite this trend, however, the remedial type of loan still predominated in 1956, and the majority of loans made by Federal credit unions were relatively small in amount, ranging between \$200 and \$500.

Table 1.—Social Security Administration: Funds available and obligations incurred, fiscal years 1957 and 1956 ¹

[In thousands; data as of June 30, 1957]

| Item | Funds available ² | | Obligations incurred | |
|--|------------------------------|---------------|----------------------|---------------|
| | 1957 | 1956 | 1957 | 1956 |
| Total..... | \$1, 741, 948 | \$1, 578, 038 | \$1, 751, 994 | \$1, 576, 272 |
| Grants to States..... | 1, 614, 361 | 1, 481, 157 | 1, 624, 613 | 1, 479, 736 |
| Public assistance..... | ³ 1, 575, 000 | 1, 447, 000 | 1, 586, 361 | 1, 446, 116 |
| Old-age assistance..... | | | 993, 284 | 922, 539 |
| Aid to the blind..... | | | 41, 361 | 37, 618 |
| Aid to dependent children..... | ³ 1, 575, 000 | 1, 447, 000 | 443, 210 | 385, 290 |
| Aid to the permanently and totally disabled..... | | | 108, 506 | 90, 669 |
| Maternal and child health and welfare services..... | 39, 361 | 34, 157 | 38, 252 | 33, 620 |
| Maternal and child health services..... | 16, 000 | 11, 928 | 15, 497 | 11, 922 |
| Services for crippled children..... | 15, 000 | 15, 000 | 14, 835 | 14, 803 |
| Child welfare services..... | 8, 361 | 7, 229 | 7, 920 | 6, 895 |
| Administrative expenses ⁴ | 127, 587 | 96, 881 | 127, 381 | 96, 536 |
| Office of the Commissioner ⁵ | 372 | 323 | 361 | 320 |
| Bureau of Old-Age and Survivors Insurance ⁶ | 121, 500 | 91, 229 | 121, 412 | 91, 067 |
| Bureau of Public Assistance..... | 1, 748 | 1, 636 | 1, 729 | 1, 621 |
| Children's Bureau ⁷ | 1, 822 | 1, 740 | 1, 811 | 1, 731 |
| Bureau of Federal Credit Unions..... | 2, 145 | 1, 953 | 2, 068 | 1, 797 |

¹ Funds available and obligations reported by administrative agencies.

² Funds made available by regular and supplemental appropriations, authorizations, transfers, allotments, recoveries, and fee collections for services rendered.

³ Excludes approximately \$11.4 million spent from 1958 appropriation for 1957 requirements.

⁴ Funds made available and obligations incurred for salaries, printing and binding, communications, traveling expenses, and reimbursement items for services rendered to other Government agencies.

⁵ Appropriations by Congress from general revenues accounted for approximately 57 percent of the administrative expenses of the Office of the Commissioner in 1956 and in 1957; balance from old-age and survivors insurance trust fund.

⁶ For administration of the old-age and survivors insurance program, which involved benefit payments of \$5,361,000,000 in 1956 and \$6,515,000,000 in 1957.

⁷ Includes expenses for investigating and reporting on matters pertaining to the welfare of children authorized by the act of 1912, as well as expenses for administration of grants to States.

Table 2.—Financing social insurance under the Social Security Act: Contributions collected and trust fund operations, fiscal years 1955–57

[In millions]

| Item | 1957 | 1956 | 1955 |
|---|-----------|---------|---------|
| Contributions collected under— | | | |
| Federal Insurance Contributions Act ¹ | 2 \$6,877 | \$6,442 | \$5,087 |
| Federal Unemployment Tax Act ² | 330 | 325 | 280 |
| State unemployment insurance laws ³ ⁴ | 1,537 | 1,329 | 1,142 |
| Old-age and survivors insurance trust fund: | | | |
| Receipts, total | 7,100 | 6,937 | 5,535 |
| Net appropriations and deposits | 6,540 | 6,442 | 5,087 |
| Interest and profits on investments ⁵ | 561 | 495 | 448 |
| Expenditures, total | 6,665 | 5,485 | 4,436 |
| Monthly benefits and lump-sum payments ⁷ | 6,515 | 5,361 | 4,333 |
| Administration | 150 | 124 | 103 |
| Assets, end of year | 23,029 | 22,593 | 21,141 |
| Disability insurance trust fund: | | | |
| Receipts, total | 338 | | |
| Net appropriations and deposits | 337 | | |
| Interest | 1 | | |
| Expenditures (administration) | 1 | | |
| Assets, end of year | 337 | | |
| State accounts in unemployment trust fund: | | | |
| Receipts, total | 1,790 | 1,520 | 1,333 |
| Deposits ⁶ | 1,578 | 1,333 | 1,146 |
| Interest | 212 | 187 | 187 |
| Withdrawals for benefit payments | 1,514 | 1,287 | 1,760 |
| Assets, end of year | 8,492 | 8,216 | 7,983 |

¹ Contributions on earnings up to and including \$3,600 a year in 1954 and \$4,200 a year beginning Jan. 1, 1955. Contribution rate paid by employers and employees: 2 percent each through Dec. 31, 1956, 2¼ percent beginning Jan. 1, 1957. Corresponding rates for the self-employed: 3 percent and 3¾ percent. Includes deposits by States under voluntary agreements for coverage of State and local employees. Includes deductions to adjust for reimbursements to general funds of the Treasury of the estimated amount of taxes subject to refund on wages in excess of wage base.

² Contributions for old-age and survivors insurance and, beginning Jan. 1, 1957, disability insurance.

³ Before 1957, tax could be paid in quarterly installments by employers of 8 or more; beginning Jan. 31, 1957, tax payable annually on preceding year's wages by employers of 4 or more. Rate is 3 percent on first \$3,000 a year of wages paid to each employee by subject employer. Because of credit offset (up to 90 percent of amount assessed is offset by State unemployment insurance contributions paid or payable except for State experience-rating reductions), effective rate is 0.3 percent of such wages.

⁴ Contributions plus penalties and interest collected from employers and contributions from employees, reported by State agencies.

⁵ Contributions and deposits by States usually differ slightly, primarily because of time lag in making deposits.

⁶ Includes interest transferred from the railroad retirement account under the financial interchange provisions of the Railroad Retirement Act, as amended in 1951.

⁷ Represents checks issued.

Source: Compiled from *Final Statement of Receipts and Expenditures of the United States Government*, other Treasury reports, and State agency reports.

Table 3.—Old-age, survivors, and disability insurance: Estimated number of families and beneficiaries receiving benefits and average monthly benefit in current-payment status, by family group, end of June 1957 and 1956

[In thousands, except for average benefit; data corrected to Nov. 21, 1957]

| Family classification of beneficiaries | June 30, 1957 | | | June 30, 1956 | | |
|--|----------------------------|--------------------------------------|---|----------------------------|--------------------------------------|---|
| | Num- ber of families | Num- ber of benefi- ciaries | Average monthly amount per family | Num- ber of families | Num- ber of benefi- ciaries | Average monthly amount per family |
| Total..... | 7, 581. 8 | 10, 342. 1 | ----- | 6, 160. 2 | 8, 374. 5 | ----- |
| Retired worker families..... | 5, 832. 3 | 7, 710. 1 | ----- | 4, 731. 9 | 6, 114. 4 | ----- |
| Worker only..... | 4, 091. 9 | 4, 091. 9 | \$59. 90 | 3, 460. 3 | 3, 460. 3 | \$60. 00 |
| Male..... | 2, 271. 8 | 2, 271. 8 | 67. 70 | 2, 148. 4 | 2, 148. 4 | 65. 60 |
| Female..... | 1, 820. 1 | 1, 820. 1 | 52. 30 | 1, 311. 8 | 1, 311. 8 | 50. 70 |
| Worker and aged wife..... | 1, 630. 2 | 3, 260. 4 | 107. 80 | 1, 182. 6 | 2, 365. 2 | 104. 80 |
| Worker and young wife ¹ | . 5 | 1. 0 | 101. 10 | . 3 | . 6 | 113. 30 |
| Worker and aged dependent husband..... | 12. 8 | 25. 6 | 92. 80 | 10. 7 | 21. 4 | 88. 20 |
| Worker and 1 or more children..... | 21. 3 | 54. 4 | 104. 40 | 16. 6 | 42. 7 | 101. 00 |
| Worker, wife aged 65 or over, and 1 or more children..... | 1. 2 | 3. 6 | 135. 90 | 1. 3 | 4. 0 | 132. 30 |
| Worker, young wife, and 1 or more children..... | 74. 3 | 273. 0 | 129. 30 | 60. 1 | 220. 1 | 121. 10 |
| Survivor families..... | 1, 749. 6 | 2, 632. 0 | ----- | 1, 428. 3 | 2, 260. 1 | ----- |
| Aged widow..... | 1, 019. 0 | 1, 019. 0 | 50. 70 | 746. 3 | 746. 3 | 49. 00 |
| Aged dependent widower..... | 1. 4 | 1. 4 | 47. 60 | 1. 1 | 1. 1 | 48. 20 |
| Widowed mother only ¹ | 1. 9 | 1. 9 | 59. 90 | . 8 | . 8 | 51. 20 |
| Widowed mother and 1 child..... | 132. 9 | 265. 8 | 112. 20 | 128. 4 | 256. 8 | 108. 50 |
| Widowed mother and 2 children..... | 92. 5 | 277. 5 | 144. 60 | 85. 7 | 257. 2 | 137. 80 |
| Widowed mother and 3 or more children..... | 87. 3 | 413. 5 | 142. 20 | 82. 4 | 389. 8 | 136. 40 |
| Divorced wife and 1 or more children..... | . 3 | . 7 | 136. 50 | . 3 | . 7 | 135. 70 |
| 1 child only..... | 238. 2 | 238. 2 | 49. 80 | 217. 0 | 217. 0 | 48. 50 |
| 2 children..... | 94. 8 | 189. 5 | 85. 60 | 90. 0 | 179. 9 | 83. 80 |
| 3 children..... | 34. 0 | 102. 1 | 109. 00 | 31. 8 | 95. 3 | 105. 20 |
| 4 or more children..... | 21. 0 | 94. 3 | 116. 70 | 20. 2 | 89. 3 | 112. 20 |
| 1 aged dependent parent..... | 24. 6 | 24. 6 | 51. 60 | 22. 8 | 22. 8 | 50. 50 |
| 2 aged dependent parents..... | 1. 8 | 3. 6 | 98. 30 | 1. 5 | 2. 9 | 95. 30 |

¹ Benefits of children were being withheld.

Table 4.—Old-age, survivors, and disability insurance: Selected data on benefits, employers, workers, and taxable earnings, by State, for specified periods, 1954, 1956, and 1957

[In thousands, except for average taxable earnings; data corrected to Nov. 21, 1957]

| State | Monthly benefits in current-payment status, end of fiscal year 1957 ¹ | | Benefit payments fiscal year 1957 ¹ | | | Employers reporting taxable wages, July-September 1956 ² | Calendar year 1954 | | |
|-----------------------------|--|-----------|--|------------------|-------------------|---|--|---|--------------------|
| | Number | Amount | Total | Monthly benefits | Lump-sum payments | | Workers with taxable earnings ³ | Amount of taxable earnings ⁴ | Average per worker |
| Total | 10,342.1 | \$554,637 | \$6,514,580 | \$6,391,689 | \$122,891 | 4,070 | 59,700 | \$133,800,000 | \$2,240 |
| Alabama | 152.9 | 6,583 | 76,600 | 75,021 | 1,579 | 59 | 880 | 1,539,000 | 1,740 |
| Alaska | 4.9 | 238 | 2,854 | 2,807 | 47 | 3 | 70 | 128,000 | 1,920 |
| Arizona | 49.2 | 2,544 | 29,688 | 29,064 | 624 | 22 | 320 | 585,000 | 1,820 |
| Arkansas | 102.0 | 4,390 | 49,296 | 48,512 | 784 | 34 | 490 | 768,000 | 1,570 |
| California | 808.7 | 45,001 | 533,981 | 524,418 | 9,563 | 338 | 4,940 | 11,437,000 | 2,320 |
| Colorado | 85.9 | 4,510 | 52,795 | 51,971 | 824 | 39 | 560 | 1,040,000 | 1,860 |
| Connecticut | 166.9 | 10,125 | 121,544 | 119,162 | 2,382 | 65 | 1,070 | 2,634,000 | 2,450 |
| Delaware | 23.5 | 1,292 | 15,338 | 15,003 | 335 | 12 | 180 | 383,000 | 2,150 |
| District of Columbia | 37.2 | 1,967 | 23,597 | 23,055 | 542 | 30 | 480 | 941,000 | 1,950 |
| Florida | 295.0 | 15,884 | 183,065 | 180,311 | 2,724 | 108 | 1,310 | 2,108,000 | 1,600 |
| Georgia | 160.1 | 6,912 | 80,381 | 78,404 | 1,977 | 77 | 1,210 | 2,022,000 | 1,670 |
| Hawaii | 22.1 | 1,074 | 12,561 | 12,415 | 146 | 11 | 170 | 355,000 | 2,050 |
| Idaho | 37.0 | 1,839 | 20,907 | 20,576 | 331 | 14 | 210 | 358,000 | 1,720 |
| Illinois | 609.2 | 31,939 | 414,387 | 405,313 | 9,044 | 236 | 4,140 | 9,727,000 | 2,350 |
| Indiana | 300.2 | 16,196 | 188,509 | 184,973 | 3,536 | 96 | 1,750 | 3,851,000 | 2,200 |
| Iowa | 177.7 | 9,170 | 102,713 | 101,144 | 1,569 | 69 | 900 | 1,781,000 | 1,990 |
| Kansas | 130.6 | 6,624 | 73,865 | 72,612 | 1,253 | 50 | 720 | 1,308,000 | 1,890 |
| Kentucky | 179.4 | 8,200 | 93,306 | 91,672 | 1,634 | 57 | 830 | 1,503,000 | 1,820 |
| Louisiana | 119.5 | 5,491 | 64,539 | 63,015 | 1,524 | 61 | 860 | 1,626,000 | 1,880 |
| Maine | 79.4 | 4,035 | 48,839 | 47,906 | 933 | 26 | 380 | 652,000 | 1,730 |
| Maryland | 140.8 | 7,486 | 89,208 | 87,149 | 2,059 | 69 | 1,010 | 2,046,000 | 2,020 |
| Massachusetts | 397.6 | 23,054 | 278,953 | 274,116 | 4,837 | 127 | 2,130 | 4,565,000 | 2,140 |
| Michigan | 441.1 | 25,735 | 301,814 | 296,003 | 5,811 | 159 | 2,960 | 7,117,000 | 2,400 |
| Minnesota | 199.9 | 10,684 | 121,467 | 119,514 | 1,953 | 73 | 1,050 | 2,092,000 | 1,990 |
| Mississippi | 90.2 | 3,612 | 40,025 | 39,234 | 791 | 34 | 500 | 779,000 | 1,540 |
| Missouri | 283.1 | 14,980 | 171,428 | 168,506 | 2,922 | 103 | 1,620 | 3,318,000 | 2,040 |
| Montana | 39.0 | 2,039 | 23,052 | 22,642 | 410 | 16 | 220 | 410,000 | 1,820 |
| Nebraska | 87.1 | 4,428 | 48,508 | 47,808 | 700 | 35 | 480 | 861,000 | 1,800 |
| Nevada | 10.3 | 570 | 6,750 | 6,586 | 164 | 7 | 120 | 185,000 | 1,540 |
| New Hampshire | 48.5 | 2,609 | 31,522 | 30,916 | 606 | 17 | 270 | 504,000 | 1,840 |
| New Jersey | 389.4 | 23,181 | 274,414 | 268,828 | 5,586 | 151 | 2,340 | 5,363,000 | 2,300 |
| New Mexico | 28.8 | 1,264 | 14,616 | 14,256 | 360 | 17 | 220 | 338,000 | 1,540 |
| New York | 1,116.0 | 64,350 | 768,691 | 753,148 | 15,543 | 502 | 7,550 | 17,238,000 | 2,280 |
| North Carolina | 185.0 | 8,124 | 92,204 | 90,242 | 1,962 | 86 | 1,380 | 2,261,000 | 1,630 |
| North Dakota | 28.2 | 1,318 | 13,622 | 13,452 | 170 | 13 | 150 | 216,000 | 1,420 |
| Ohio | 583.5 | 33,240 | 394,827 | 387,317 | 7,510 | 205 | 3,760 | 8,808,000 | 2,340 |
| Oklahoma | 119.8 | 5,762 | 66,004 | 64,927 | 1,077 | 51 | 770 | 1,374,000 | 1,770 |
| Oregon | 126.2 | 6,928 | 81,948 | 80,754 | 1,194 | 49 | 670 | 1,463,000 | 2,190 |
| Pennsylvania | 789.4 | 44,661 | 537,455 | 527,316 | 10,139 | 255 | 4,530 | 10,092,000 | 2,230 |
| Puerto Rico | 48.3 | 1,449 | 15,913 | 15,713 | 200 | 16 | 350 | 301,000 | 860 |
| Rhode Island | 67.3 | 3,840 | 46,326 | 45,450 | 876 | 21 | 380 | 771,000 | 2,010 |
| South Carolina | 91.7 | 3,877 | 44,848 | 43,721 | 1,127 | 44 | 630 | 1,056,000 | 1,680 |
| South Dakota | 37.1 | 1,814 | 19,304 | 19,069 | 235 | 16 | 180 | 286,000 | 1,630 |
| Tennessee | 169.8 | 7,467 | 84,730 | 82,994 | 1,736 | 70 | 1,040 | 1,804,000 | 1,740 |
| Texas | 380.5 | 18,059 | 205,927 | 201,554 | 4,373 | 216 | 2,940 | 5,648,000 | 1,920 |
| Utah | 39.2 | 2,058 | 23,786 | 23,371 | 415 | 16 | 310 | 568,000 | 1,840 |
| Vermont | 29.0 | 1,476 | 17,555 | 17,248 | 307 | 11 | 160 | 314,000 | 1,960 |
| Virgin Islands | 0.6 | 19 | 226 | 217 | 9 | (5) | 10 | 5,000 | 450 |
| Virginia | 178.7 | 8,367 | 97,793 | 95,750 | 2,043 | 82 | 1,210 | 2,180,000 | 1,810 |
| Washington | 183.4 | 10,185 | 120,904 | 118,954 | 1,950 | 66 | 930 | 2,038,000 | 2,180 |
| West Virginia | 134.0 | 6,541 | 77,760 | 76,540 | 1,220 | 37 | 560 | 1,081,000 | 1,930 |
| Wisconsin | 259.5 | 14,264 | 165,353 | 162,610 | 2,743 | 90 | 1,400 | 3,231,000 | 2,310 |
| Wyoming | 15.2 | 804 | 9,272 | 9,101 | 171 | 9 | 130 | 222,000 | 1,660 |
| Foreign ⁶ | 62.7 | 3,374 | 39,610 | 39,269 | 341 | ----- | 50 | 126,000 | 2,580 |
| Maritime ⁷ | ----- | ----- | ----- | ----- | ----- | ----- | 130 | 334,000 | 2,510 |

¹ Distribution by beneficiary's State of residence estimated.² State data represent number of employers reporting taxable wages by the State of their reporting headquarters. An employer is a legal entity such as a corporation, partnership, or single ownership, for which a single tax return is filed. Excludes agricultural employers.³ State data represent workers employed in the State at some time during the year. Workers employed in more than 1 State are counted once in each of the States in which employed.⁴ State data represent taxable earnings distributed according to the State in which earned. Averages, based on unrounded estimates of workers and earnings, are rounded to nearest \$10.⁵ Fewer than 500 employers.⁶ Benefit data relate to persons in foreign countries receiving old-age and survivors insurance benefits. Employment and earnings data relate to citizens of the United States employed by American employers.⁷ Relates to employment of officers and crews of American vessels.

Table 5.—Old-age, survivors, and disability insurance: Selected data on benefits, employers, workers, and taxable earnings for specified periods, 1955–57

[In thousands, except for average monthly benefit and average taxable earnings; corrected to Nov. 21, 1957]

| Item | 1957 | 1956 | 1955 |
|--|---------------|-----------------|-----------------|
| Fiscal year | | | |
| Benefits in current-payment status (end of period): | | | |
| Number..... | 10, 342. 1 | 8, 374. 5 | 7, 563. 5 |
| Old-age..... | 5, 832. 3 | 4, 731. 9 | 4, 214. 8 |
| Wife's or husband's..... | 1, 719. 0 | 1, 255. 0 | 1, 131. 3 |
| Child's ¹ | 1, 427. 4 | 1, 316. 7 | 1, 220. 9 |
| Widow's or widower's..... | 1, 020. 5 | 747. 8 | 689. 8 |
| Mother's..... | 314. 9 | 297. 3 | 281. 2 |
| Parent's..... | 28. 1 | 25. 7 | 25. 6 |
| Total monthly amount..... | \$554, 637 | \$439, 424 | \$384, 025 |
| Old-age..... | \$373, 230 | \$296, 976 | \$257, 230 |
| Wife's or husband's..... | \$58, 749 | \$41, 968 | \$37, 011 |
| Child's ¹ | \$54, 283 | \$48, 662 | \$43, 730 |
| Widow's or widower's..... | \$51, 707 | \$36, 648 | \$32, 150 |
| Mother's..... | \$15, 224 | \$13, 876 | \$12, 677 |
| Parent's..... | \$1, 445 | \$1, 293 | \$1, 226 |
| Average monthly amount: | | | |
| Old-age..... | \$63. 99 | \$62. 76 | \$61. 03 |
| Wife's or husband's..... | \$34. 18 | \$33. 44 | \$32. 72 |
| Child's ¹ | \$38. 03 | \$36. 96 | \$35. 82 |
| Widow's or widower's..... | \$50. 67 | \$49. 01 | \$46. 61 |
| Mother's..... | \$48. 35 | \$46. 67 | \$45. 08 |
| Parent's..... | \$51. 38 | \$50. 31 | \$47. 86 |
| Benefit payments during period: | | | |
| Monthly benefits..... | \$6, 391, 689 | \$5, 245, 476 | \$4, 232, 609 |
| Old-age..... | \$4, 340, 270 | \$3, 531, 824 | \$2, 802, 967 |
| Supplementary..... | \$679, 289 | \$531, 831 | \$428, 847 |
| Survivor..... | \$1, 372, 130 | \$1, 181, 821 | \$1, 000, 795 |
| Lump-sum payments..... | \$122, 891 | \$115, 337 | \$100, 539 |
| Insured workers (midpoint of period—Jan. 1) ² | 72, 500 | 70, 900 | 70, 700 |
| Fully insured..... | 72, 200 | 70, 100 | 70, 300 |
| Currently but not fully insured..... | 300 | 800 | 400 |
| Estimated number of employers reporting taxable wages, 1st quarter of fiscal year..... | 3 4, 070 | 3 3, 910 | 3, 715 |
| Calendar year | | | |
| Estimated number of workers with taxable earnings..... | (4) | 68, 000 | 66, 000 |
| Estimated amount of taxable earnings..... | (4) | \$170, 000, 000 | \$158, 000, 000 |
| Average taxable earnings ⁵ | (4) | \$2, 500 | \$2, 390 |

¹ Data for 1957 include benefits payable to disabled persons aged 18 or over, whose disability began before age 18 and who are the children of a retired or deceased insured worker.² Estimates of insured workers have not been adjusted to reflect changes in insurance status arising from: (1) provisions that coordinate the old-age and survivors insurance and railroad retirement programs and (2) wage credits for military service. Estimates are only partially adjusted to eliminate duplicate count of persons with taxable earnings reported on more than 1 account number.³ Excludes agricultural employers.⁴ Not available.⁵ Rounded to nearest \$10.

Table 6.—Special types of public assistance under plans approved by the Social Security Administration: Number of recipients and average payment, June 1957, and total payments to recipients, by program and State, fiscal year 1957

[Includes vendor payments for medical care and cases receiving only such payments; data to Oct. 16, 1957]

| State | Fiscal year: | Old-age assistance | | | | Aid to dependent children | | | | Aid to the blind | | | Aid to the permanently and totally disabled | | |
|----------------------|--------------|----------------------------------|----------------|------------------------|----------------------------------|----------------------------|-----------|------------------------|----------------------------------|-------------------------------------|----------------------------------|------------------------|---|----------------------------------|----------------------------------|
| | | Number of recipients, June | | Payments to recipients | | Number of recipients, June | | Payments to recipients | | Number of recipients, June | | Payments to recipients | | Number of recipients, June | |
| | | Total, fiscal year payment, June | (in thousands) | Average payment, June | Total, fiscal year payment, June | Families | Total | Children | Average payment per family, June | Average payment per recipient, June | Total, fiscal year payment, June | (in thousands) | Average payment, June | Total, fiscal year payment, June | Total, fiscal year payment, June |
| | | | | | | | | | | | | | | | |
| Alabama | 1955 | 2,548,503 | \$52.30 | 43.95 | 1,589,811 | 620,290 | 2,239,281 | 1,691,579 | \$86.78 | \$24.04 | \$620,551 | 103,902 | \$57.41 | \$69,322 | \$54.93 |
| Alaska | 1956 | 2,533,716 | 54.29 | 55.53 | 1,633,533 | 613,720 | 2,250,229 | 1,707,620 | 89.27 | 24.35 | 639,476 | 103,796 | 60.42 | 73,064 | 56.72 |
| Arizona | 1957 | 2,503,823 | 58.66 | 58.66 | 1,723,362 | 647,208 | 2,398,693 | 1,831,925 | 96.52 | 26.04 | 700,268 | 108,441 | 63.87 | 80,610 | 59.10 |
| Arkansas | 1955 | 105,583 | 43.95 | 47.587 | 47,587 | 20,957 | 82,090 | 63,394 | 41.09 | 10.66 | 9,177 | 1,636 | 38.41 | 707 | 35.90 |
| California | 1956 | 14,136 | 63.77 | 1,153 | 9,410 | 5,307 | 20,646 | 15,687 | 104.72 | 26.92 | 1,539 | 79 | 70.56 | 66 | 4.881 |
| Colorado | 1957 | 55,078 | 35.71 | 23,027 | 35,71 | 8,476 | 32,361 | 25,250 | 56.51 | 14.80 | 5,144 | 2,036 | 64.44 | 618 | 31.84 |
| Connecticut | 1955 | 263,934 | 74.85 | 236,020 | 236,020 | 53,035 | 187,049 | 145,429 | 137.58 | 38.88 | 82,511 | 13,421 | 91.80 | 14,585 | 2,369 |
| Delaware | 1956 | 52,443 | 82.36 | 55,572 | 52,443 | 6,070 | 23,473 | 18,202 | 114.91 | 29.72 | 7,992 | 322 | 68.74 | 262 | 3,689 |
| District of Columbia | 1957 | 15,717 | 88.83 | 17,243 | 15,717 | 5,512 | 17,743 | 13,225 | 133.32 | 43.28 | 9,084 | 328 | 102.36 | 402 | 3,213 |
| Florida | 1955 | 1,631 | 92.6 | 92.6 | 1,631 | 1,314 | 4,985 | 3,824 | 89.26 | 23.53 | 1,332 | 253 | 70.28 | 182 | 3,273 |
| Georgia | 1956 | 69,013 | 52.30 | 40,853 | 40,853 | 22,580 | 81,105 | 62,289 | 114.00 | 26.57 | 2,964 | 253 | 64.48 | 195 | 1,557 |
| Hawaii | 1957 | 98,490 | 42.85 | 48,828 | 14,701 | 54,123 | 41,421 | 82,35 | 82.35 | 16.46 | 15,621 | 2,540 | 54.00 | 1,624 | 2,818 |
| Idaho | 1955 | 1,594 | 49.42 | 898 | 2,825 | 1,071 | 6,550 | 4,721 | 112.58 | 29.25 | 13,880 | 3,499 | 48.11 | 1,949 | 7,061 |
| Illinois | 1956 | 8,247 | 60.13 | 5,848 | 1,786 | 3,062 | 10,726 | 8,196 | 137.72 | 37.55 | 3,651 | 91 | 57.45 | 63 | 60.00 |
| Indiana | 1957 | 86,510 | 67.34 | 67,049 | 26,794 | 107,826 | 81,936 | 144,32 | 144.32 | 27.75 | 43,403 | 3,416 | 67.20 | 147 | 704 |
| Iowa | 1955 | 32,611 | 53.81 | 31,215 | 27,225 | 9,313 | 33,485 | 24,987 | 99.47 | 27.75 | 10,398 | 1,820 | 66.38 | 1,406 | 833 |
| Kansas | 1956 | 32,275 | 71.92 | 4,960 | 18,032 | 13,931 | 18,032 | 13,931 | 128.36 | 35.60 | 10,015 | 1,496 | 83.34 | 1,434 | 1,057 |
| Kentucky | 1957 | 58,523 | 38.55 | 26,290 | 19,351 | 70,507 | 53,130 | 71.90 | 121.90 | 19.73 | 15,811 | 3,268 | 80.60 | 4,222 | 3,620 |
| Louisiana | 1955 | 124,458 | 63.03 | 92,495 | 21,741 | 86,446 | 66,395 | 84.15 | 92.06 | 21.16 | 19,087 | 2,305 | 74.47 | 1,913 | 8,098 |
| Maine | 1956 | 11,706 | 53.26 | 7,325 | 4,634 | 16,051 | 11,730 | 11,730 | 92.06 | 26.58 | 4,769 | 488 | 57.28 | 341 | 61.54 |
| Maryland | 1957 | 9,871 | 50.93 | 5,913 | 6,665 | 27,319 | 21,234 | 100.04 | 100.04 | 24.55 | 7,633 | 474 | 56.65 | 310 | 58.45 |
| Massachusetts | 1955 | 86,532 | 86.30 | 87,831 | 12,732 | 42,552 | 31,883 | 138.29 | 41.35 | 29.713 | 1,062 | 1,062 | 104.64 | 2,390 | 3,415 |
| Michigan | 1956 | 68,864 | 63.51 | 51,186 | 20,847 | 73,916 | 54,368 | 129.69 | 36.58 | 29.310 | 1,803 | 1,803 | 71.82 | 2,919 | 13,558 |
| Minnesota | 1957 | 49,704 | 44.092 | 44,092 | 8,338 | 28,082 | 21,768 | 134.62 | 39.69 | 12,734 | 1,168 | 1,168 | 95.48 | 1,222 | 1,470 |
| Mississippi | 1955 | 81,198 | 28.67 | 26,196 | 13,895 | 52,035 | 40,733 | 28.18 | 7.53 | 4,194 | 1,808 | 1,808 | 38.93 | 1,987 | 1,631 |
| Missouri | 1956 | 126,645 | 54.55 | 81,630 | 21,344 | 77,774 | 58,266 | 85.18 | 23.38 | 13,114 | 3,594 | 3,594 | 60.00 | 4,609 | 56.89 |

See footnotes at end of table, p. 78.

Table 6.—Special types of public assistance under plans approved by the Social Security Administration: Number of recipients and average payment, June 1957, and total payments to recipients, by program and State, fiscal year 1957.—Continued

[Corrected to Oct. 16, 1957]

| State | Old-age assistance | | | Aid to dependent children | | | | | Aid to the blind | | | Aid to the permanently and totally disabled | | | |
|---------------------|----------------------------|------------------------|-----------------------------------|----------------------------|--------------------|----------|----------------------------------|-------------------------------------|----------------------------|-----------------------------------|-----------------------|---|-----------------------------------|---------|---------|
| | Number of recipients, June | Payments to recipients | | Number of recipients, June | | | Payments to recipients | | Number of recipients, June | Payments to recipients | | Number of recipients, June | Payments to recipients | | |
| | | Average payment, June | Total, fiscal year (in thousands) | Families | Total ¹ | Children | Average payment per family, June | Average payment per recipient, June | | Total, fiscal year (in thousands) | Average payment, June | | Total, fiscal year (in thousands) | | |
| Montana..... | 8,318 | \$61.88 | \$6,119 | 2,279 | 8,285 | 6,404 | \$117.87 | \$32.42 | \$2,861 | 417 | \$68.52 | \$339 | 1,499 | \$69.32 | \$1,201 |
| Nebraska..... | 17,090 | 53.15 | 10,921 | 2,808 | 16,368 | 7,819 | 99.14 | 26.85 | 3,278 | 921 | 65.96 | 690 | 1,367 | 56.77 | 821 |
| Nevada..... | 2,542 | 67.13 | 1,994 | 655 | 2,203 | 1,684 | 91.16 | 27.08 | 1,504 | 120 | 82.10 | 111 | 327 | 88.57 | 326 |
| New Hampshire..... | 5,527 | 65.95 | 4,426 | 936 | 3,523 | 2,657 | 138.59 | 36.82 | 1,504 | 253 | 69.84 | 209 | 473 | 91.13 | 4,650 |
| New Jersey..... | 19,456 | 79.71 | 17,835 | 7,415 | 24,735 | 18,738 | 139.51 | 41.82 | 10,808 | 923 | 77.56 | 886 | 4,734 | 55.07 | 1,140 |
| New Mexico..... | 9,649 | 52.98 | 5,850 | 6,817 | 25,474 | 19,423 | 96.01 | 25.69 | 7,072 | 401 | 56.28 | 256 | 1,853 | 90.37 | 42,428 |
| New York..... | 91,914 | 89.02 | 97,822 | 57,528 | 216,646 | 161,429 | 145.47 | 38.63 | 96,320 | 4,282 | 95.28 | 4,823 | 38,806 | 39.06 | 4,563 |
| North Carolina..... | 51,683 | 35.24 | 21,044 | 21,450 | 83,260 | 63,922 | 68.22 | 17.58 | 15,872 | 4,956 | 44.88 | 2,567 | 15,001 | 90.96 | 1,010 |
| North Dakota..... | 7,942 | 82.49 | 7,310 | 1,710 | 6,268 | 4,817 | 129.94 | 35.45 | 2,578 | 119 | 63.87 | 89 | 1,022 | 90.96 | 1,010 |
| Ohio..... | 94,539 | 64.48 | 74,042 | 18,650 | 71,592 | 54,577 | 94.53 | 24.60 | 19,956 | 3,840 | 67.13 | 2,848 | 9,251 | 53.39 | 5,545 |
| Oklahoma..... | 94,483 | 66.74 | 74,602 | 16,117 | 54,831 | 41,817 | 85.53 | 25.14 | 15,990 | 1,941 | 81.32 | 1,880 | 7,517 | 74.66 | 5,203 |
| Oregon..... | 18,038 | 78.75 | 16,290 | 4,022 | 14,775 | 11,168 | 140.22 | 38.17 | 5,782 | 318 | 63.06 | 314 | 3,591 | 92.52 | 3,612 |
| Pennsylvania..... | 50,842 | 50.48 | 30,855 | 30,672 | 119,036 | 90,502 | 115.14 | 29.67 | 40,554 | 17,594 | 62.66 | 13,009 | 13,416 | 59.26 | 9,123 |
| Puerto Rico..... | 43,147 | 7.99 | 4,114 | 44,476 | 155,710 | 124,911 | 12.72 | 3.63 | 6,048 | 1,784 | 7.91 | 165 | 21,186 | 8.68 | 2,168 |
| Rhode Island..... | 7,477 | 69.37 | 6,183 | 3,725 | 13,089 | 9,730 | 119.33 | 33.96 | 5,002 | 139 | 73.53 | 132 | 1,670 | 78.74 | 1,540 |
| South Carolina..... | 36,990 | 37.13 | 16,065 | 8,499 | 33,065 | 25,811 | 54.94 | 14.12 | 5,116 | 1,766 | 41.86 | 864 | 7,940 | 34.77 | 3,169 |
| South Dakota..... | 10,071 | 47.35 | 5,669 | 2,865 | 9,702 | 7,468 | 87.75 | 25.91 | 2,845 | 190 | 47.83 | 110 | 927 | 48.13 | 486 |
| Tennessee..... | 58,036 | 35.69 | 24,781 | 19,088 | 69,251 | 51,923 | 64.51 | 17.78 | 14,014 | 3,007 | 41.00 | 1,488 | 4,194 | 39.78 | 1,571 |
| Texas..... | 224,440 | 44.96 | 118,265 | 23,696 | 97,170 | 73,749 | 71.14 | 17.35 | 18,715 | 6,525 | 49.00 | 3,768 | 5,880 | 50.05 | 3,442 |
| Utah..... | 3,090 | 61.94 | 6,740 | 2,830 | 9,970 | 7,418 | 113.51 | 32.79 | 3,894 | 221 | 70.38 | 182 | 1,786 | 67.26 | 1,442 |
| Vermont..... | 6,470 | 50.44 | 3,780 | 1,087 | 3,794 | 2,857 | 90.59 | 25.95 | 1,045 | 136 | 53.46 | 83 | 603 | 50.05 | 341 |
| Virgin Islands..... | 639 | 18.53 | 150 | 263 | 1,008 | 832 | 36.22 | 9.45 | 105 | 25 | (?) | 7 | 105 | 19.81 | 25 |
| Virginia..... | 16,098 | 6.88 | 6,383 | 8,857 | 35,043 | 27,313 | 72.44 | 18.31 | 7,462 | 1,279 | 40.78 | 603 | 5,486 | 42.09 | 2,586 |
| Washington..... | 53,606 | 94.15 | 57,721 | 9,573 | 33,222 | 24,650 | 147.47 | 42.49 | 14,589 | 780 | 116.78 | 954 | 5,380 | 105.13 | 6,427 |
| West Virginia..... | 22,258 | 33.36 | 8,098 | 18,122 | 68,718 | 53,272 | 86.79 | 22.89 | 18,016 | 1,143 | 37.77 | 508 | 8,334 | 37.03 | 3,532 |
| Wisconsin..... | 39,578 | 71.47 | 32,855 | 7,866 | 28,065 | 20,888 | 150.12 | 42.05 | 13,031 | 1,064 | 80.41 | 951 | 1,267 | 107.75 | 1,536 |
| Wyoming..... | 3,772 | 61.91 | 2,820 | 629 | 1,700 | 1,700 | 119.66 | 33.54 | 802 | 65 | 65.65 | 50 | 523 | 63.84 | 3,389 |

¹ Includes as recipients the children and 1 parent or other adult relative in families in which the requirements of at least 1 such adult were considered in determining the amount of assistance.

² Average payment not computed on base of less than 50 recipients.

Table 7.—Special types of public assistance under plans approved by the Social Security Administration: Federal grants to States and total expenditures and percent from Federal funds, by program and State, fiscal year 1957

[Includes vendor payments for medical care; amounts in thousands; data corrected to Oct. 31, 1957]

| State | Federal grants to States ¹ | | | | | Expenditures for assistance and administration | | | | | | | |
|---------------------------|---------------------------------------|--------------------|---------------------------|------------------|---|--|----------------------------|---------------------------|----------------------------|------------------|----------------------------|---|----------------------------|
| | Total | Old-age assistance | Aid to dependent children | Aid to the blind | Aid to the permanently and totally disabled | Old-age assistance | | Aid to dependent children | | Aid to the blind | | Aid to the permanently and totally disabled | |
| | | | | | | Amount | Percent from Federal funds | Amount | Percent from Federal funds | Amount | Percent from Federal funds | Amount | Percent from Federal funds |
| Fiscal year: | | | | | | | | | | | | | |
| 1955..... | \$1,423,907 | \$920,791 | \$385,233 | \$36,467 | \$81,416 | \$1,086,441 | 55.4 | \$683,907 | 56.6 | \$75,009 | 49.0 | \$164,342 | 50.3 |
| 1956..... | 1,446,116 | 922,539 | 395,291 | 37,618 | 90,669 | 1,735,436 | 54.0 | 708,289 | 56.0 | 79,110 | 47.8 | 185,237 | 49.4 |
| 1957..... | 1,586,361 | 993,284 | 443,210 | 41,361 | 108,506 | 1,831,263 | 55.2 | 776,477 | 58.0 | 87,293 | 47.6 | 211,170 | 51.3 |
| Alabama..... | 47,865 | 35,905 | 7,695 | 538 | 3,727 | 49,859 | 71.9 | 9,944 | 79.2 | 736 | 73.3 | 5,232 | 73.2 |
| Alaska..... | 1,796 | 678 | 1,080 | 37 | --- | 1,241 | 57.0 | 1,643 | 65.6 | 73 | 51.7 | --- | --- |
| Arizona..... | 10,536 | 6,025 | 4,149 | 362 | --- | 9,670 | 62.1 | 6,317 | 67.4 | 640 | 57.0 | --- | --- |
| Arkansas..... | 24,121 | 17,331 | 4,122 | 725 | 1,943 | 23,820 | 73.5 | 5,412 | 80.2 | 1,041 | 69.9 | 2,547 | 75.2 |
| California..... | 172,331 | 121,562 | 44,396 | 6,374 | --- | 251,766 | 48.4 | 96,234 | 47.2 | 15,866 | 40.0 | --- | --- |
| Colorado..... | 29,331 | 21,790 | 5,057 | 154 | 2,329 | 57,307 | 38.5 | 8,824 | 58.5 | 295 | 50.6 | 4,152 | 56.3 |
| Connecticut..... | 12,506 | 7,090 | 4,164 | 150 | 1,103 | 18,562 | 44.0 | 9,782 | 46.8 | 426 | 40.4 | 3,464 | 36.1 |
| Delaware..... | 1,921 | 636 | 989 | 109 | 1,188 | 1,989 | 64.6 | 1,434 | 69.8 | 208 | 52.6 | 315 | 57.4 |
| District of Columbia..... | 4,550 | 1,268 | 2,018 | 116 | 1,118 | 2,144 | 59.2 | 3,364 | 62.4 | 206 | 56.5 | 2,000 | 55.5 |
| Florida..... | 44,430 | 27,851 | 13,327 | 1,094 | 2,159 | 42,735 | 65.7 | 17,221 | 78.1 | 1,713 | 64.8 | 3,351 | 63.2 |
| Georgia..... | 52,704 | 35,594 | 10,543 | 1,395 | 5,173 | 51,255 | 69.7 | 14,738 | 72.6 | 2,060 | 67.4 | 7,612 | 67.5 |
| Hawaii..... | 3,560 | 568 | 2,432 | 41 | 520 | 4,119 | 61.3 | 4,119 | 58.6 | 73 | 56.4 | 957 | 54.5 |
| Idaho..... | 5,256 | 3,363 | 1,394 | 82 | 418 | 6,114 | 56.9 | 2,984 | 48.5 | 160 | 52.5 | 773 | 53.6 |
| Illinois..... | 68,942 | 38,137 | 23,595 | 1,597 | 5,613 | 72,773 | 53.5 | 46,573 | 50.6 | 3,144 | 50.8 | 11,184 | 46.3 |
| Indiana..... | 20,337 | 12,228 | 7,284 | 824 | --- | 23,300 | 55.5 | 11,522 | 63.6 | 1,619 | 50.5 | --- | --- |
| Iowa..... | 23,083 | 16,626 | 5,762 | 695 | --- | 32,989 | 52.4 | 10,791 | 53.0 | 1,548 | 45.2 | --- | --- |
| Kansas..... | 20,312 | 14,291 | 3,907 | 286 | 1,828 | 29,195 | 49.5 | 7,386 | 52.7 | 613 | 46.8 | 3,877 | 46.7 |
| Kentucky..... | 34,207 | 19,785 | 12,653 | 1,120 | 650 | 27,438 | 71.7 | 16,775 | 75.8 | 1,571 | 71.1 | 867 | 70.0 |
| Louisiana..... | 78,395 | 56,096 | 15,690 | 1,037 | 5,571 | 97,640 | 57.5 | 21,200 | 72.9 | 2,049 | 50.5 | 9,264 | 60.9 |
| Maine..... | 8,601 | 4,762 | 3,235 | 227 | 377 | 7,714 | 64.0 | 5,052 | 67.9 | 356 | 63.2 | 665 | 60.1 |
| Maryland..... | 11,865 | 3,854 | 5,642 | 194 | 2,174 | 6,464 | 60.3 | 8,687 | 65.4 | 332 | 59.3 | 3,711 | 57.5 |
| Massachusetts..... | 54,057 | 37,966 | 10,205 | 898 | 4,988 | 93,720 | 41.4 | 23,028 | 45.3 | 2,499 | 35.7 | 14,712 | 35.9 |
| Michigan..... | 46,753 | 28,772 | 13,366 | 784 | 1,241 | 53,230 | 53.9 | 31,240 | 51.1 | 1,531 | 51.0 | 2,789 | 44.3 |
| Minnesota..... | 28,294 | 20,769 | 6,284 | 542 | 1,700 | 46,509 | 46.6 | 13,884 | 46.6 | 1,320 | 41.2 | 1,165 | 60.0 |
| Mississippi..... | 27,117 | 21,127 | 3,438 | 1,478 | 1,073 | 28,009 | 77.1 | 4,898 | 77.0 | 2,111 | 71.0 | 1,444 | 73.0 |
| Missouri..... | 78,511 | 55,398 | 14,698 | 2,073 | 6,342 | 84,847 | 55.9 | 20,458 | 72.4 | 3,905 | 53.0 | 9,879 | 64.5 |
| Montana..... | 6,135 | 3,547 | 1,700 | 196 | 692 | 6,611 | 65.9 | 3,124 | 55.7 | 384 | 52.1 | 1,340 | 51.9 |

See footnotes as end of table, p. 80.

Table 7.—Special types of public assistance under plans approved by the Social Security Administration: Federal grants to States and total expenditures and percent from Federal funds, by program and State, fiscal year 1957—Continued

| State | Federal grants to States ¹ | | | | | Expenditures for assistance and administration | | | | | |
|---------------------|---------------------------------------|--------------------|---------------------------|------------------|---|--|----------------------------|---------------------------|----------------------------|------------------|----------------------------|
| | Total | Old-age assistance | Aid to dependent children | Aid to the blind | Aid to the permanently and totally disabled | Old-age assistance | | Aid to dependent children | | Aid to the blind | |
| | | | | | | Amount | Percent from Federal funds | Amount | Percent from Federal funds | Amount | Percent from Federal funds |
| Nebraska..... | \$10,423 | \$7,156 | \$2,296 | \$401 | \$569 | \$11,763 | 62.7 | \$3,538 | 64.4 | \$746 | 54.3 |
| Nevada..... | 1,712 | 1,166 | 489 | 57 | 163 | 2,160 | 54.6 | 756 | 64.2 | 126 | 47.0 |
| New Hampshire..... | 3,235 | 2,237 | 724 | 111 | 2,058 | 4,731 | 51.1 | 1,632 | 49.1 | 227 | 43.5 |
| New Jersey..... | 16,745 | 8,623 | 5,594 | 470 | 739 | 20,276 | 44.9 | 11,765 | 46.5 | 971 | 47.8 |
| New Mexico..... | 10,187 | 4,035 | 5,242 | 172 | 2,082 | 6,435 | 64.0 | 7,834 | 68.4 | 285 | 62.4 |
| New York..... | 117,517 | 43,028 | 52,154 | 2,253 | 20,882 | 110,779 | 40.4 | 113,391 | 47.4 | 5,754 | 39.9 |
| North Carolina..... | 36,833 | 16,439 | 13,341 | 1,989 | 5,065 | 22,213 | 73.9 | 17,198 | 78.4 | 2,933 | 67.1 |
| North Dakota..... | 5,202 | 3,317 | 1,382 | 53 | 450 | 7,803 | 44.8 | 2,776 | 49.6 | 101 | 51.5 |
| Ohio..... | 61,193 | 40,452 | 14,876 | 1,754 | 4,111 | 78,406 | 53.6 | 22,106 | 67.3 | 3,184 | 55.3 |
| Oklahoma..... | 55,398 | 40,467 | 11,008 | 891 | 3,033 | 76,693 | 53.6 | 16,871 | 66.5 | 1,945 | 46.1 |
| Oregon..... | 12,205 | 7,588 | 2,922 | 147 | 1,548 | 17,445 | 45.6 | 6,453 | 48.3 | 3,333 | 44.7 |
| Pennsylvania..... | 55,803 | 20,856 | 25,605 | 3,445 | 5,897 | 34,505 | 62.0 | 45,842 | 57.7 | 13,745 | 25.9 |
| Puerto Rico..... | 5,312 | 1,784 | 2,505 | 71 | 953 | 4,516 | 2 38.9 | 6,807 | 2 36.7 | 190 | 2 38.0 |
| Rhode Island..... | 6,667 | 3,173 | 2,668 | 67 | 758 | 6,575 | 48.9 | 5,294 | 52.5 | 144 | 47.7 |
| South Carolina..... | 20,016 | 12,469 | 4,399 | 645 | 2,503 | 17,047 | 72.5 | 5,607 | 79.1 | 926 | 69.7 |
| South Dakota..... | 6,377 | 3,800 | 2,074 | 83 | 361 | 6,134 | 67.1 | 3,094 | 67.9 | 123 | 66.4 |
| Tennessee..... | 33,230 | 18,925 | 12,018 | 1,089 | 1,199 | 26,393 | 73.3 | 15,613 | 78.1 | 1,570 | 70.2 |
| Texas..... | 102,183 | 83,984 | 15,564 | 2,635 | 2,635 | 121,944 | 69.0 | 19,996 | 79.0 | 3,917 | 67.3 |
| Utah..... | 6,917 | 3,803 | 2,216 | 104 | 795 | 7,038 | 55.9 | 4,203 | 53.7 | 191 | 52.7 |
| Vermont..... | 3,595 | 2,490 | 800 | 55 | 250 | 3,979 | 67.0 | 1,157 | 69.6 | 88 | 65.8 |
| Virgin Islands..... | 3,192 | 4,997 | 74 | 5 | 16 | 3,190 | 49.9 | 142 | 50.0 | 8 | 49.2 |
| Virginia..... | 13,526 | 4,945 | 6,174 | 482 | 1,946 | 7,156 | 71.6 | 8,313 | 76.0 | 689 | 67.4 |
| Washington..... | 35,801 | 25,330 | 7,570 | 376 | 2,524 | 60,576 | 42.4 | 15,803 | 48.7 | 1,011 | 37.4 |
| West Virginia..... | 23,217 | 6,763 | 13,306 | 391 | 2,757 | 9,094 | 75.2 | 18,474 | 72.4 | 529 | 72.3 |
| Wisconsin..... | 22,886 | 15,585 | 6,256 | 480 | 565 | 35,420 | 46.4 | 14,136 | 43.8 | 1,025 | 46.5 |
| Wyoming..... | 2,471 | 1,694 | 510 | 30 | 237 | 3,053 | 56.3 | 962 | 53.6 | 54 | 55.1 |

¹ Based on checks issued (excluding any amounts paid during the fiscal year for an earlier or subsequent year); may differ slightly from fiscal-year expenditures from Federal funds reported by States.

² Less than 50 percent because half of total expenditures exceeded the statutory limitation on the aggregate amount of Federal funds for all programs that can be made available for a fiscal year under legislation in effect during fiscal year 1957.

Table 8.—Maternal and child health and welfare services: Grants to States for maternal and child health services, services for crippled children, and child welfare services under the Social Security Act, by program and State, fiscal year 1957¹

[In thousands]

| State | Maternal and child health services | Crippled children's services | Child welfare services |
|---------------------------|--|------------------------------------|------------------------------|
| United States..... | \$14,913.1 | \$14,835.0 | \$7,920.2 |
| Alabama..... | 493.5 | 520.4 | 242.1 |
| Alaska..... | 122.4 | 177.9 | 43.9 |
| Arizona..... | 120.9 | ..... | 81.2 |
| Arkansas..... | 241.0 | 307.2 | 174.3 |
| California..... | 794.6 | 694.0 | 228.8 |
| Colorado..... | 265.4 | 167.0 | 91.0 |
| Connecticut..... | 203.5 | 217.0 | 79.2 |
| Delaware..... | 108.5 | 92.8 | 47.6 |
| District of Columbia..... | 215.6 | 151.0 | 33.4 |
| Florida..... | 374.3 | 367.4 | 161.8 |
| Georgia..... | 444.0 | 546.4 | 255.0 |
| Hawaii..... | 152.4 | 153.7 | 51.6 |
| Idaho..... | 111.1 | 105.3 | 34.1 |
| Illinois..... | 407.3 | 453.5 | 236.4 |
| Indiana..... | 290.8 | 193.0 | 111.9 |
| Iowa..... | 202.3 | 316.5 | 170.6 |
| Kansas..... | 166.6 | 172.4 | 128.4 |
| Kentucky..... | 340.7 | 520.1 | 253.7 |
| Louisiana..... | 362.3 | 371.1 | 199.0 |
| Maine..... | 115.1 | 115.6 | 78.0 |
| Maryland..... | 371.5 | 300.6 | 118.4 |
| Massachusetts..... | 468.4 | 231.7 | 90.9 |
| Michigan..... | 461.0 | 459.7 | 263.3 |
| Minnesota..... | 299.5 | 308.1 | 192.5 |
| Mississippi..... | 390.3 | 326.6 | 226.5 |
| Missouri..... | 313.6 | 220.8 | 194.5 |
| Montana..... | 111.1 | 167.0 | 72.2 |
| Nebraska..... | 110.3 | 121.1 | 58.8 |
| Nevada..... | 95.6 | 91.8 | 28.9 |
| New Hampshire..... | 92.5 | 97.3 | 56.0 |
| New Jersey..... | 196.6 | 222.4 | 97.0 |
| New Mexico..... | 149.7 | 162.8 | 83.7 |
| New York..... | 664.7 | 527.1 | 257.2 |
| North Carolina..... | 616.7 | 577.3 | 367.2 |
| North Dakota..... | 110.2 | 106.1 | 64.8 |
| Ohio..... | 509.9 | 486.9 | 287.0 |
| Oklahoma..... | 203.7 | 324.7 | 149.8 |
| Oregon..... | 143.0 | 156.3 | 81.0 |
| Pennsylvania..... | 623.1 | 620.0 | 367.1 |
| Puerto Rico..... | 374.1 | 430.1 | 231.5 |
| Rhode Island..... | 110.0 | 108.4 | 45.5 |
| South Carolina..... | 341.6 | 381.4 | 217.4 |
| South Dakota..... | 89.9 | 79.1 | 81.6 |
| Tennessee..... | 453.7 | 480.5 | 247.1 |
| Texas..... | 595.3 | 652.3 | 389.1 |
| Utah..... | 159.3 | 189.1 | 56.3 |
| Vermont..... | 100.3 | 97.3 | 58.5 |
| Virgin Islands..... | 86.8 | 86.7 | 34.7 |
| Virginia..... | 427.5 | 407.6 | 249.1 |
| Washington..... | 213.4 | 164.8 | 129.2 |
| West Virginia..... | 220.7 | 210.9 | 189.2 |
| Wisconsin..... | 193.0 | 318.3 | 199.0 |
| Wyoming..... | 83.7 | 86.9 | 33.1 |

¹ Based on checks issued less refunds.

Table 9.—Federal credit unions: Number of members, amount of assets, amount of shares, and amount of loans outstanding, Dec. 31, 1935–56¹

| Year | Number of operating Federal credit unions | Number of members | Assets | Shares | Loans outstanding |
|-----------|---|-------------------|---------------|---------------|-------------------|
| 1935..... | 772 | 119,420 | \$2,372,100 | \$2,228,400 | \$1,834,200 |
| 1936..... | 1,751 | 309,700 | 9,158,100 | 8,510,900 | 7,343,800 |
| 1937..... | 2,313 | 483,920 | 19,264,700 | 17,649,700 | 15,695,300 |
| 1938..... | 2,760 | 632,050 | 29,629,000 | 26,876,100 | 23,830,100 |
| 1939..... | 3,182 | 850,770 | 47,810,600 | 43,326,900 | 37,673,000 |
| 1940..... | 3,756 | 1,127,940 | 72,530,200 | 65,805,800 | 55,818,300 |
| 1941..... | 4,228 | 1,408,880 | 106,052,400 | 97,208,900 | 69,484,700 |
| 1942..... | 4,145 | 1,356,940 | 119,591,400 | 109,822,200 | 43,052,500 |
| 1943..... | 3,938 | 1,311,620 | 127,329,200 | 117,339,100 | 35,376,200 |
| 1944..... | 3,815 | 1,306,000 | 144,365,400 | 133,677,400 | 34,438,400 |
| 1945..... | 3,757 | 1,216,625 | 153,103,120 | 140,613,962 | 35,155,414 |
| 1946..... | 3,761 | 1,302,132 | 173,166,459 | 159,718,040 | 56,800,937 |
| 1947..... | 3,845 | 1,445,915 | 210,375,571 | 192,410,043 | 91,372,197 |
| 1948..... | 4,058 | 1,628,339 | 258,411,736 | 235,008,368 | 137,642,327 |
| 1949..... | 4,495 | 1,819,606 | 316,362,504 | 285,000,934 | 186,218,022 |
| 1950..... | 4,984 | 2,126,823 | 405,834,976 | 361,924,778 | 263,735,838 |
| 1951..... | 5,398 | 2,463,898 | 504,714,580 | 457,402,124 | 299,755,775 |
| 1952..... | 5,925 | 2,853,241 | 662,408,869 | 597,374,117 | 415,062,315 |
| 1953..... | 6,578 | 3,255,422 | 854,232,007 | 767,571,092 | 573,973,529 |
| 1954..... | 7,227 | 3,598,790 | 1,033,179,042 | 931,407,456 | 681,970,336 |
| 1955..... | 7,806 | 4,032,220 | 1,267,427,045 | 1,135,164,876 | 863,042,049 |
| 1956..... | 8,350 | 4,502,210 | 1,529,201,927 | 1,366,258,073 | 1,049,188,549 |

¹ Data for 1935–44 on membership, assets, shares, and loans outstanding are partly estimated.

Table 10.—Federal credit unions: Assets and liabilities, Dec. 31, 1956, and Dec. 31, 1955

| Assets and liabilities | Amount | | | Percentage distribution | |
|--|-----------------|------------------|--------------------|-------------------------|------------------|
| | Dec. 31, 1956 | Dec. 31, 1955 | Change during year | Dec. 31, 1956 | Dec. 31, 1955 |
| Number of operating Federal credit unions..... | 8,350 | 7,806 | 544 | ----- | ----- |
| Total assets..... | \$1,529,201,927 | \$1,267,427,045 | \$261,774,882 | 100.0 | 100.0 |
| Loans to members..... | 1,049,188,549 | 863,042,049 | 186,146,500 | 68.6 | 68.1 |
| Cash..... | 118,900,595 | 105,361,383 | 13,539,212 | 7.8 | 8.3 |
| United States bonds..... | 88,009,631 | 83,896,302 | 4,113,329 | 5.8 | 6.6 |
| Savings and loan shares..... | 228,565,099 | 181,956,756 | 46,608,343 | 14.9 | 14.4 |
| Loans to other credit unions..... | 31,647,416 | 24,019,882 | 7,627,534 | 2.1 | 1.9 |
| Land and buildings..... | 3,449,730 | (¹) | ----- | .2 | (¹) |
| Other assets..... | 9,440,907 | 9,150,673 | 3,739,964 | .6 | .7 |
| Total liabilities..... | 1,529,201,927 | 1,267,427,045 | 261,774,882 | 100.0 | 100.0 |
| Notes payable..... | 34,572,441 | 29,098,259 | 5,474,182 | 2.3 | 2.3 |
| Accounts payable and other liabilities..... | 4,344,517 | 3,642,212 | 702,305 | .3 | .3 |
| Shares..... | 1,366,258,073 | 1,135,164,876 | 231,093,197 | 89.3 | 89.5 |
| Regular reserve..... | 49,668,568 | 39,042,931 | 10,625,637 | 3.2 | 3.1 |
| Special reserve for delinquent loans..... | 3,469,216 | 2,468,400 | 1,000,816 | .2 | .2 |
| Other reserves ² | 692,884 | ----- | 692,884 | .1 | ----- |
| Undivided earnings..... | 70,196,228 | 58,010,367 | 12,185,861 | 4.6 | 4.6 |

¹ Included in "other assets."

² Reserve for contingencies and special reserve for losses.

Public Health Service

Health of The Nation

STEADY ADVANCES in health continued to be made during the past year. There was a nationwide expansion of medical research, and this research yielded significant new knowledge about health and disease. In applying the new knowledge, State and local health agencies broadened their programs and turned increasing attention to new and emerging health problems. There was an increase in health facilities of various kinds, and inroads were made into the stubborn problem of shortages of health personnel. And the health record of the American people showed new gains over old foes.

During the year, new programs were begun or established programs were expanded within the Service, as a result of legislation enacted by Congress at the close of fiscal year 1956 and the start of fiscal year 1957. Among the most important legislative measures were: a new program of Federal matching grants to aid in the construction and renovation of medical research facilities; a program of traineeships for professional nurses to qualify them for supervisory and teaching positions, and for various types of professional public health personnel; a 2-year extension of the local-State-Federal program of hospital and medical facilities construction; authorization of Federal grants for special studies of care and institutional services for the mentally ill; extension and strengthening of the State-Federal water pollution control program; authorization for the Public Health Service to conduct a continuing survey of sickness and disability in the United States; and the creation within the Public Health Service of a National Library of Medicine.

Considerable time and energy during the year was devoted to planning and organizing these new programs and to putting them into

operation. In addition, there was a significant increase in research and research training, and an intensification of effort against some of today's important health problems, such as accident prevention, chronic disease control and health of the aging, and radiological health. Finally, the year was marked by the appearance of a new strain of influenza and the planning and adoption of preparatory measures to minimize an anticipated epidemic in the United States.

HEALTH RECORD

The indices by which national health is measured showed that the health of the American people remained at a high level. The general death rate for 1956¹ was 9.4 per 1,000 population—the ninth consecutive year that the death rate has been below 10 per 1,000.

Both the infant and the maternal death rates, which have declined steadily since the end of World War II, continued to drop. The infant mortality rate was 26.0 deaths per 1,000 live births in 1956, compared with 26.4 in 1955. Since 1946 this death rate has dropped by 23 percent. The maternal mortality rate was 3.8 maternal deaths per 10,000 live births, compared with 4.7 in 1955. There has been a 76 percent decline in the maternal death rate since 1946.

The average length of life for the entire population—69.5 years—remained unchanged in 1955, the latest year for which there are published life tables for the United States. The average life expectancy was 67.3 years for white males, 73.6 for white females, 61.2 for nonwhite males, and 65.9 for nonwhite females.

The decade since 1946 has been marked by reductions in mortality from such communicable diseases as tuberculosis, syphilis, and influenza and pneumonia. The tuberculosis death rate was 8.3 per 100,000 population in 1956, compared with 9.1 in 1955 and 36.4 in 1946. The principal diseases of childhood—scarlet fever and streptococcal sore throat, diphtheria, whooping cough, and measles—which caused about 10 deaths per 100,000 population under 15 years of age in 1945, were responsible for about 2 deaths per 100,000 in 1956.

In the same period, death rates have also decreased for suicide, homicide, and accidents. No definite trend has been apparent for motor-vehicle accidents; the death rate was 23.9 per 100,000 population in 1946 and 24.3 in 1956. For all other accidents, however, the death rate dropped from 45.9 in 1946 to 32.1 in 1956, the lowest on record.

In 1956, decreases were reported in the number of cases of several reportable diseases, including infectious hepatitis, poliomyelitis, meningococcal infections, diphtheria, whooping cough, and typhoid fever. Malaria continued to decline. Small increases were reported

¹ All vital statistics are given for the calendar year.

in the number of cases of *Salmonella* infections, measles, and streptococcal infections, and larger increases for encephalitis and psittacosis, due largely to several outbreaks of these diseases.

The chronic diseases continued to take the heaviest toll of lives. Together, diseases of the heart and blood vessels and cancer accounted for more than 70 percent of all deaths in 1956. The death rate for the major heart and blood vessel diseases was 513.3 per 100,000 population in 1956, compared with 345.2 in 1900. The 1956 death rate for cancer was 146.6, the highest yet in its climb from 64.0 in 1900.

BIRTHS, MARRIAGES, AND DIVORCES

The Nation's birthrate has remained at a high level since the end of World War II. About 4,220,000 live births occurred in 1956, for a birthrate of 25.2 per 1,000 population. In 1955, there were 4,104,000 live births, and a birthrate of 25.0. Since there were 9.4 deaths per 1,000 people in 1956—or a total of about 1,600,000 deaths—the rate of natural population increase was 15.6 persons per 1,000 population, the second highest total in the last 25 years.

The number of marriages increased slightly in 1956. There were 1,569,000 marriages, for a rate of 9.4 per 1,000 population, compared with 1,531,000 marriages and a rate of 9.3 in 1955. Provisional figures for 1956 indicate that the number of divorces was about the same as in 1955, when there were 377,000 divorces, for a rate of 2.3 per 1,000 population.

INFLUENZA

Asian influenza, caused by a new strain of influenza virus, made its appearance in the United States in 1957. Believed to have started in Northern China, the disease first became known in the Western Hemisphere following a mid-April epidemic in Hong Kong. Within a few months, millions of cases were reported from the Western Pacific and the Far East, and the disease soon spread over most of the world. The first confirmed cases in the United States occurred aboard a naval vessel in Newport, Rhode Island, in June and localized outbreaks were reported during the summer, normally a season of low influenza incidence in this country.

Shortly after the outbreak in the Far East, the new virus strain was isolated by U. S. Army medical teams and shipped to this country for study. Scientists at both Army and Public Health Service laboratories confirmed the report that this was a new strain of the Type A influenza virus.

On May 22, the Public Health Service supplied samples of the strain to the six pharmaceutical manufacturers licensed to produce influenza vaccine. All six immediately began to produce experimental vaccines against the Asian virus strain, and on June 7, the

first experimental lot was submitted to the Public Health Service's Division of Biologics Standards for testing. From these tests, it was determined that the new single-strain vaccine would give substantial protection against Asian influenza, and the manufacturers began working on large-scale production. They set a production goal of at least 60 million cubic centimeters of the vaccine by February 1958.

Asian influenza was characterized by a high attack rate—in the Far East, the attack rate was approximately 20 percent—and a low case death rate. Health experts believed that an epidemic was probable in the United States with the coming of cold weather in the fall and winter. This was based on the past epidemiology of influenza, the wide sweep of the disease through Asia, the fact that it had been "seeded" in the United States, and that the people of this country had little or no immunity against the new virus strain. Because even a mild form of the illness could disrupt community life, the Public Health Service began to develop preparatory measures to reduce the incidence of the disease and to minimize the impact of an epidemic.

On June 10, the Surgeon General established and met with an advisory committee on influenza, including representation from the American Medical Association and the Association of State and Territorial Health Officers. The group recommended that: (1) the Nation's health workers, and the population generally, should be alerted to the threat of a possible influenza epidemic; (2) epidemiological and diagnostic laboratory forces should be strengthened to develop more information about the disease and its spread; (3) the influenza vaccine should be recommended for military and civilian uses as soon as supplies became available; and (4) emergency medical and health measures should be planned to provide medical care in the event of large-scale epidemics.

These measures were put into effect immediately. In cooperation with professional and voluntary health groups, the Public Health Service undertook a program of public information and education to alert people to the probability of an epidemic and to encourage maximum use of the vaccine. The vaccine manufacturers agreed to distribute the vaccine to each State, according to its population, to assure an equitable share of the early, scarce supply. It was recommended, too, that first consideration in vaccination programs be given to those performing essential community services, including those who care for the sick, and those with chronic disease or other debilitating illness. Communities across the Nation began establishing advisory groups to carry out these recommendations.

The Public Health Service made plans to strengthen its resources for influenza research, for epidemic intelligence, and for laboratory

identification of the virus. Diagnostic materials were sent to more than 100 viral laboratories throughout the Nation, and physicians and health officials were alerted to cooperate with these laboratories in identifying cases. An Influenza Surveillance Unit was set up within the Service's Communicable Disease Center to help trace the source, location, and extent of outbreaks of the disease.

Finally, the Nation's medical and hospital organizations made plans to mobilize personnel, resources, and facilities to take care of the emergency medical care needs in epidemic situations.

For the first time in history, therefore, public health and medical officials in this country were in the position of being ahead of an impending epidemic of influenza. Considerable planning and preparatory work, including the development of a new vaccine, was done before a single case of Asian influenza occurred in the United States. This was the result of a vast cooperative effort among the Nation's official health agencies, professional and voluntary organizations, civic groups, industry, and the public. It was a dramatic example of modern public health in action.

POLIOMYELITIS

In 1956 there was a dramatic reduction in poliomyelitis incidence in the United States. In 1955, 28,985 cases of poliomyelitis were reported in this country. After the first full year of use of the new poliomyelitis vaccine, the number of cases decreased by more than 50 percent. The total number reported from 1956 was 12,146. The reduction in paralytic poliomyelitis was also striking, from 7,886 cases in 1955 to 5,241 cases in 1956.

In August 1955, Congress enacted the Poliomyelitis Vaccination Assistance Act, which authorized the Public Health Service to make grants to the States to purchase the vaccine and administer vaccination programs. This Act was extended in February 1956 to June 30, 1957. Under the Act, \$53.6 million was appropriated to buy vaccine and to get children and pregnant women inoculated. The States used over 99 percent of this fund, and about 29 million people benefited.

About 91 million cubic centimeters of vaccine were produced during the year, and by the start of the 1958 fiscal year there appeared to be enough vaccine available to protect almost the entire population under 40 years of age. The Public Health Service, in cooperation with the American Medical Association, the National Foundation for Infantile Paralysis, and State health officials, undertook a campaign of public information and promotion to urge vaccination of as many people as possible during the fall and winter months.

Funds and Personnel

There was a total of \$682.5 million available to the Public Health Service in 1957 (see table 1, page 150). Of this amount, about \$534 million was in appropriations and authorizations. The balance was made up of reimbursements for services rendered to other agencies and in unobligated balances from previous years.

About one-third of the total amount available was devoted to medical research, chiefly through research and training grants to medical, dental, and research institutions. Another third was allocated to the States in the form of grants for public health programs, and for the construction of hospital and medical facilities and of sewage treatment plants. The remainder supported the operation of Public Health Service hospitals, foreign and interstate quarantine, and other direct Service activities.

There were 23,354 full-time employees in the Public Health Service at the close of fiscal year 1957 (see table 2, page 153). This number included 1,422 members of the regular Commissioned Corps of the Service, 1,759 members of the Reserve Corps on active duty, 175 officers of the Commissioned Reserve on temporary training duty, and 19,998 full-time Civil Service employees.

National Library of Medicine

The National Library of Medicine Act (P. L. 941, 84th Congress) was signed into law by the President on August 3, 1956. In accordance with this law, the Armed Forces Medical Library—its personnel, equipment, collections, records, and funds—was transferred from the Department of Defense to the Public Health Service's National Library of Medicine.

The new Library continued the 120-year tradition of the Armed Forces Medical Library. It is one of the three largest research libraries operated by the Federal Government, and one of the largest research libraries in a special subject in the world. The Library's holdings exceed one million pieces—books, journals, theses, pamphlets, prints, and films. Material of clinical and research importance is received from every country in the world. Each year the Library acquires almost 100,000 monographs and journal pieces. Each month its loan service places over 10,000 items in the hands of medical research workers throughout the country.

During fiscal year 1957, the National Library of Medicine acquired about 12,000 books, 73,000 serial pieces, and 1,200 new serial titles. It purchased 525 rare and old items for its History of Medicine Division. Almost 23,000 titles were catalogued, and about 2,000 pictures and portraits were added to the Library's art collection. Over

125,000 volumes were circulated to users of the Library, and some 9,000 reference questions were answered and 435 bibliographies compiled. Almost 16,000 major entries were prepared for the 1956 volume of the *National Library of Medicine Catalogue*; and 111,000 items were published in its *Current List of Medical Literature*, from 1,500 journal titles. More than 1,100,000 pages were filmed in response to 69,000 photoduplication orders.

BOARD OF REGENTS

In February 1951, the President appointed a Board of Regents to advise and make recommendations to the Surgeon General on policy matters affecting the National Library of Medicine, including selection of the site of a new library building, which was authorized by the legislation. The 17-member Board includes the Surgeons General of the Public Health Service, Army, Navy, and Air Force, the Chief Medical Director of the Veterans Administration, the Assistant Director for Biological and Medical Sciences of the National Science Foundation, and the Librarian of Congress as ex officio members; and ten appointed members from leaders in medicine and related fields.

The Board of Regents held three meetings during the year. At its first meeting, the Board elected Dr. Worth B. Daniels as Chairman and Dr. Champ Lyons as Vice Chairman. Dr. Frank B. Rogers, Director of the National Library of Medicine, was appointed Secretary to the Board. At its second meeting, on April 29, 1957, the Board unanimously recommended a site for the new library building on the grounds of the National Institutes of Health in Bethesda, Maryland. After hearing additional reports on the planning for the new building at its third meeting on June 7, 1957, the Board reaffirmed its decision on the site.

Other matters brought before the Board were the Library's policies regarding interlibrary loans and the distribution of publications. In order to modernize its loan policy and improve lending services, the Library reexamined the bases for both loans and photocopying. With the approval of the Board of Regents, a unified system of interlibrary loans and photoduplication was adopted. The Board also approved adjustments in the distribution pattern of the Library's publications, so that agencies of the Federal Government would be served on a more equitable basis.

NEW BUILDING

Active planning for the new Library building was resumed in August 1956. A contract was later negotiated with an architectural firm for a preliminary study of Library requirements. In June 1957,

a second contract was let for architectural services calling for design of the building and preparation of working drawings and specifications.

Public Health Methods

The Division of Public Health Methods continued to provide staff assistance to the Surgeon General and to conduct research in the fields of public health administration, organization, needs, and resources. The new National Health Survey program was organized, and the publication of *Public Health Reports* continued.

ANALYSIS OF ILLNESS AND DISABILITY

A continuing national health survey was authorized by legislation enacted a year ago. Under this program comprehensive statistics on health and illness are being compiled for the general population. This represents the first large-scale collection of such data since 1936. By the end of the first year, the basic household interview phase of the program had progressed through a 2-month "dry run" collection of data in the field. The gathering of data for tabulation began in July 1957. Another phase of the program will consist of medical examinations of a sample of the population. Several methodological studies are already under way. The sampling, field work, and statistical processing of results from the household survey are being conducted for the Public Health Service by the Bureau of the Census.

A 16-month survey of Indian health, conducted by the Division in cooperation with other units of the Public Health Service, was completed during the year. The published report, "Health Services for American Indians," is a compendium of information and data on Indian health needs and resources, on Federal programs, and on requirements for a comprehensive health program for the Indian population. While a wide variation exists among Indian communities in different areas of the country, conditions urgently requiring attention include: tuberculosis, other communicable diseases for which specific control measures are recognized, and accidents. The report recommended: improvement and extension of medical services outside hospitals; establishment of more field health units; expansion of preventive services; additional dental services; more preventive health services for infants and children; and mental health services.

Morbidity studies were conducted during the year on the following subjects: influenza and pneumonia mortality trends in relation to epidemics of these diseases; long-term trends in illness and medical care; and illness and availability for work. At the Division's office in Hagerstown, the reliability of chronic illness data obtained in household surveys was evaluated in a special study.

Since 1951, the Division has been serving as a clearinghouse on current morbidity statistics projects. A fourth listing of the Clearinghouse's "Sources of Morbidity Data" was published during the year.

EDUCATION FOR HEALTH PROFESSIONS

A cost analysis study of Emory University's School of Medicine has been completed. This study was made to develop concepts and methods of cost analysis applicable to the problems of medical schools. Part II of the manual, "Cost Analysis for Collegiate Programs in Nursing," developed jointly with the Division of Nursing Resources, has also been completed.

At the request of the House Committee on Interstate and Foreign Commerce, the Division assisted with the preparation of a 479-page report on medical and other health professions schools. The document, published under the title "Medical School Inquiry," includes data on the capacity of medical schools, their graduates, physician requirements, and the financial aspects of medical education.

STUDIES OF HEALTH SERVICES

"Prevention of Chronic Illness"—Volume I of the series, *Chronic Illness in the United States*, published as the findings of the Commission on Chronic Illness—was edited and certain chapters written in the Division for the Commission. A document, "Guide for Community Surveys—Assessing Chronic Illness in Your Community," is being developed as a manual for organizing studies to measure chronic illness and to inventory a community's resources for medical care, rehabilitation, and other services.

A report on social service departments in hospitals in the United States, surveyed in cooperation with the American Hospital Association and the National Association of Social Workers, has been completed and published. The study presents the current patterns of organization and staffing of social service departments, summarizes the professional training, and analyzes activities reported by the departments.

CONSULTATIVE SERVICES

In the fields illustrated above, the Division of Public Health Methods gives consultation to governmental, voluntary, and professional organizations, advising on methods of evaluating and formulating programs. During the past year, assistance was provided: on a proposed reorganization of the Ministry of Health of Colombia, South America; to the Smithsonian Institution in its plan for a Hall of Health exhibit; to the Bureau of the Budget and the Veterans'

Administration on a projection of hospital bed requirements; to the Office of Defense Mobilization in the development of a policy for mobilization of professional health manpower; to the University of North Carolina, which is planning a study of factors in the choice of health careers; and on other subjects.

National Institutes of Health

Increased appropriations in fiscal year 1957 for the research programs administered by the National Institutes of Health for fiscal year 1957 brought opportunities for expansion of medical research throughout the United States. Three-quarters of the funds were awarded as grants to non-Federal institutions, supporting research projects, training activities, and construction of research facilities. The Institutes of Allergy and Infectious Diseases, Mental Health, and Dental Research received the largest relative increases. Dollar increases were largest in the programs of the Heart, Mental Health, and Cancer Institutes and in the Institute of Neurological Diseases and Blindness.

The availability of additional funds led to a greater volume of grant applications, to the awarding of more research grants and fellowships to scientific investigators, and to a doubling of the training grant expenditures over 1956 levels.

An important byproduct of the increase in funds over the past few years has been the stabilization of support for scientists working on long-term research projects. In 1957 support for NIH grantees continued for an average of 3.2 years, as compared with 2.5 years in 1955 and 1.8 years in 1951. More than half of the past year's 8,000 applications, however, proposed new rather than continued projects.

The number of research fellows rose from 1,400 to 2,100, and over 4,000 persons were trained under the training grant and traineeship programs. The first senior research fellowships were awarded in fiscal 1957, beginning a five-year program to foster additional research in the basic science departments of schools of medicine, dentistry, and public health. Training was strengthened in the preclinical and physical sciences. New training programs were inaugurated to overcome the shortage of statisticians trained in epidemiology and biometry and to experiment with methods of research instruction for medical students during their undergraduate years. A program to develop training in dental research was initiated in dental schools.

Under Title V of the Health Amendments Act of 1956 (Public Law 911), grants were authorized for projects to evaluate treatment and care of the mentally ill in all types of institutions.

Other new legislation—the Health Research Facilities Act of 1956 (Public Law 835)—authorized a 3-year program of grants to build and equip laboratories and other facilities for medical research throughout the country. A supplemental appropriation authorized the planning and construction of urgently needed laboratory and office facilities at the NIH site in Bethesda, Md.

Special emphasis was given during 1957 to the expansion of the cancer chemotherapy program and to the development and expansion of psychopharmacologic treatment methods. The Cancer Chemotherapy National Service Center completed its second year of operation as a national headquarters in the voluntary, cooperative search for a chemical cure for cancer. Establishment of the Psychopharmacology Service Center during the year stimulated research on drugs that affect psychological function. Guidelines were provided in the fall of 1956 by a national conference on the evaluation of pharmacotherapy in mental illness.

Another development of special significance was the establishment of the Center for Aging Research. Administered by the National Heart Institute, the Center was created to stimulate and coordinate cardiovascular, psychological, and related studies on gerontology conducted at NIH and other institutions.

These various developments are discussed further in sections concerning the individual NIH programs. The National Institutes of Health comprises seven Institutes and Five Divisions—the Clinical Center, the Division of Biologics Standards, the Division of Research Grants, the Division of Research Services and the Division of Business Operations.

Clinical Center

The clinical research programs of NIH achieved a gratifying degree of maturity and professional acceptance. The physical plant was brought to the stage where maximum utilization was possible. The Clinical Center departments that provide hospital care and diagnostic services for all research patients were functioning with full effectiveness despite continued shortages in technical personnel.

The most important physical changes initiated during the year were the completion of the residential facility for disturbed children, activation of a child nursing unit, and plans for a new surgical research wing.

Maximum available bed capacity was attained in 1957, marking an increase in available beds from 443 in July 1956 to 516 in July 1957. No further expansion of bed capacity is contemplated.

Inpatient admissions totaled 2,598, as compared with 2,095 in 1956. Visits of patients as ambulatory followup or outpatient research sub-

jects totaled 21,343 as against 18,575 in 1956. Although patients continued to come from all sections of the United States, approximately 75 percent were referred from the District of Columbia, Maryland, and Virginia.

Division of Biologics Standards

The importance of biologics control in the development of preventive medicine has been emphasized by the expanding range of diseases to which biological products are applicable, particularly in the field of virology. Two new vaccines have been under intensive study by the Division of Biologics Standards—the adenovirus vaccine and the Asian influenza vaccine.

After months of testing, standards relating to the safety, purity, and potency of the adenovirus vaccine—a biological product designed to prevent infections due to adenoviruses—were drawn up by DBS scientists and given preliminary approval by the Surgeons General of the Army, Navy, and Public Health Service.

With confirmation that the influenza epidemic in the Far East this spring was due to a hitherto unknown virus strain, the Division procured samples for the six licensed manufacturers so that production of a vaccine to combat the new strain (Asian, type A) could be studied. As data became available, suitable potency tests were developed in DBS laboratories; reference vaccines correlating data from laboratory, clinical, and field investigations were established; and specifications for the manufacture of vaccine containing the new strain were provided for the guidance of the pharmaceutical industry.

A new potency test for poliomyelitis vaccine was developed by scientists in DBS and industry. The test employs chicks instead of monkeys. It has been approved by the Technical Committee on Poliomyelitis Vaccine and is being used concurrently with present monkey potency tests on a trial basis. Over 97.5 million cubic centimeters of poliomyelitis vaccine were released during 1957.

More than 100 licensed blood banks throughout the country are collaborating in a study initiated by the Division to determine the causes of error in labeling blood for transfusion, and thus to reduce eventually the number of such errors.

Division of Research Grants

The Division of Research Grants, in addition to coordinating NIH grants and fellowships, initiated several new programs and expanded its support of research and research training in the basic sciences. The Health Research Facilities Act of 1956 (Public Law 835) estab-

lished the National Advisory Council on Health Research Facilities and authorized \$30 million annually for construction grants to research institutions on a matching basis.

Among other new programs initiated during the year were a Senior Research Fellowship Program, to help relieve the acute shortage of teachers and investigators in the preclinical sciences; a Postsophomore Fellowship Program, to provide research opportunities to medical students; and an Experimental Training Grant Program, to permit experimentation with research training in medical schools. The Division also intensified the coordination of research and training in epidemiology, biometry, and public health.

Progress was achieved in biophysics, biophysical chemistry, experimental pathology, and other areas of Division-sponsored grantee research. A major practical finding is that edathamil calcium disodium increases the urinary output of accumulated lead, providing a new therapeutic agent for lead poisoning in children. Of fundamental importance is the discovery of a new type of ribonucleic acid. Ribonucleic compounds represent the bedrock of all known mechanisms for transmitting individual traits from one generation to another.

Central Services

The Division of Business Operations furnishes NIH scientists with auxiliary management services. During the year, the Division developed and carried through a program of decentralizing authority to the individual Institutes. Paperwork and multiple-level reviews have been reduced, and thus action has been speeded.

The Division of Research Services provides scientific, technical, and engineering support for the Institutes. Major emphasis in 1957 was given to planning and designing additional construction authorized by Congress. This includes special facilities for the production and care of germ-free animals, a surgical wing for the Clinical Center, a permanent office building, and laboratories for the Division of Biologics Standards and for the National Institute of Dental Research. During the year, the Division established a program for translating and disseminating selected research papers and abstracts from Soviet periodicals devoted to the medical and biological sciences.

Institute of Allergy and Infectious Diseases

This Institute conducts research and training in the field of allergic and infectious diseases. Allergies alone affect some 17 million per-

sons in the United States. Acute respiratory diseases—to cite a single category of infections—are by far the most prevalent of all illnesses.

Although spectacular gains have been made against some communicable diseases, remaining problems are numerous and important. The increase in the average life span has created new problems, one of which is how to prevent illness and disability in the added years. The control of allergic and infectious disease is a significant aspect of this problem.

Research to develop more potent and less toxic protective vaccines has shown notable progress at the Institute's Rocky Mountain Laboratory, Hamilton, Mont. Working with various types of microorganisms, the scientists have found that the cell wall, when separated from the inner protoplasm of the cell, can be purified chemically; this not only leaves a concentrate that contains the elements which confer immunity but removes toxic substances responsible for some side reactions. These techniques open new opportunities for improving vaccines, including possibly one for tuberculosis.

Institute scientists extended their work with the adenoviruses, a group of viruses originally isolated from diseased adenoidal tissue. The adenoviruses have been shown to be almost as important a cause of eye infection as of respiratory disease. Continuing studies indicate that these infections are particularly prevalent among preschool children. Since a vaccine against certain types of adenoviruses in military recruits has been shown to reduce illness, the investigators are studying the advisability of developing an adenovirus vaccine for specific use in young children.

Institute clinicians made the first direct measurement of the rate at which humans produce antibodies against disease. This was done by transplanting lymph nodes—tissues involved in manufacture of protective antibodies—to a patient suffering from hypogammaglobulinemia, a rare disease characterized by extremely low levels of antibody production.

About 250 million people throughout the world have malaria and about 2½ million die from it each year. Recent cooperative studies with the World Health Organization have shown that malaria can be prevented by administering antimalarial drugs in the same manner as iodine in salt. A dietary salt-drug blend may be useful in areas where spraying is not a practical means of controlling the carrier mosquito.

GRANT-SUPPORTED RESEARCH

It has long been evident to scientists that factors other than specific immunity are involved in susceptibility or resistance to infectious diseases. Scientists from the University of California, with

the aid of a grant from the Institute, investigated psychological stress as a possible factor in infection processes. Mice subjected to such stress were shown to be more susceptible to infection than other laboratory animals.

In another of many promising studies supported by NIAID grants, research scientists at Children's Hospital in Philadelphia are developing uses for a blood fractionating machine that greatly increases potentialities for stockpiling vital plasma. Donors may give as often as once a week by this method, which returns red blood cells to the donor in a single operation.

An acute streptococcal infection protected guinea pigs against asthmatic attacks induced in normal animals by egg white aerosols during research by a grantee at Northwestern University. The reason for this interesting and possibly significant phenomenon is unknown. The grantee plans further studies of the allergic mechanisms involved and will investigate other infectious organisms and noninfectious derivatives for their value as protective agents.

Institute of Arthritis and Metabolic Diseases

More than 12 million people in the United States are afflicted with various forms of arthritis, diabetes, and other metabolic disorders. Although the ultimate means for prevention and cure are still remote, several developments toward control of these diseases are under way.

Clinical trials with more than 200 patients have proved the effectiveness of a simple treatment for the shock so often fatal to victims of severe burns. Scientists in the National Institute of Arthritis and Metabolic Diseases have found that a solution of table salt and baking soda dissolved in tap water and administered by mouth is especially valuable in an emergency. No injection, whole blood, or plasma is required.

The same scientists have developed a treatment for a type of infection which causes many late deaths among those who have been severely burned and have successfully passed through the early shock period. Although the antibiotic and sulfa drugs failed, human gamma globulin, a blood derivative, was successful in subduing this infection, which was found to be caused by bacteria known as pseudomonas. Clinical trials in progress may prove that the treatment is another life-saving advance.

A new pain-killing drug developed by chemists in NIAMD laboratories is as potent, measure for measure, as morphine and three to four times as potent as Demerol, but has less addiction liability than either. Much more potent than codeine, it has only slightly more addiction potential.

Institute clinicians have devised a method for the detection and measurement of blood loss from the intestines that is much more effective and precise than older procedures, including X-ray.

Searching for a better diagnostic test for rheumatoid arthritis, NIAMD scientists collaborated with colleagues in the National Institute of Allergy and Infectious Diseases in developing the bentonite flocculation test. Much more simple and rapid than present methods, BFT provides accurate answers in minutes rather than hours or days.

A major scientific achievement was the discovery by an NIAMD investigator and his collaborator, an Institute grantee, of the manner in which nucleic acids are synthesized. The scientists were successful in synthesizing these important substances with enzymes isolated from living cells. Nucleic acids of the body control, among other things, the ability of a cell to generate without variation identical molecules of a protein such as insulin. Nucleic acids are also believed to be responsible for the genetic transmission of inherited characteristics and defects, among which is diabetes.

GRANT-SUPPORTED RESEARCH

In a project aided by a grant from the NIAMD, the prevalence of rheumatoid arthritis, as distinguished from other forms of rheumatic disease, was determined by intensive study of a selected sample of a local population. Preliminary results indicate that 2.7 percent of those examined had rheumatoid arthritis, that the disease strikes 3 times as many women as men, that married persons are affected more often than single, and that persons who have been separated, divorced, or widowed are more often affected than those who remain married.

Growth hormone, one of the endocrine substances produced by the anterior pituitary gland, is of particular importance to the understanding of diabetes, since it acts to cancel out the effect of insulin. Growth hormone obtained from cattle has been shown to cause diabetes in dogs but to have no effect on humans. Growth hormone from monkeys, isolated by scientists at the University of California, has been found to be active in man. It is so rare, however, that not enough can be supplied for clinical experiments. Hope for a larger supply of growth hormone is high because the grantees have isolated the substance from whales.

Extensive clinical trials of a new oral antidiabetic drug, tolbutamide, have demonstrated its effectiveness in reducing the blood-sugar level in certain types of diabetes, though the manner in which the drug acts on the body is still undetermined. Scientists supported by Institute grants participated in the laboratory and clinical testing. Relatively nontoxic and safe, tolbutamide (Orinase) is on the market, available for prescription.

Cancer Institute

Cancer, the Nation's second leading cause of death, takes about 250,000 lives annually. The goal of cancer research is control through cure and prevention. Scientists of many disciplines are working toward this end in studies of the causation, diagnosis, and treatment of the disease.

Research carried out in the National Cancer Institute produced an advance that may be the first real breakthrough in treatment of cancer with drugs. Choriocarcinoma, a rare type of cancer occurring in the uterus of women after pregnancy, was apparently suppressed by the use of methotrexate. Even metastatic lesions in the lungs healed in several patients.

Promising results were obtained with a new drug, 6-azauracil, which produced temporary improvement in patients with acute leukemia, most of whom were children.

Studies with many people have indicated that routine removal of moles on the soles and palms, which has been suggested in some investigations in the past years, should not be recommended. Moles of this type occur more often than is generally believed, and identification of the rare mole that may become malignant is impossible.

A basic research observation, which may lead to a new diagnostic technique for cancer, was that the antibiotic tetracycline accumulates in tumor tissue and can be detected by a bright yellow fluorescence under ultraviolet light.

In a collaborative project with the Tissue Bank of the Naval Medical School, two clones—pure strains of cells grown from single cells—of human skin epithelium were successfully established. This achievement is a step toward the production of epithelial cells for reparative surgery required in such conditions as burns.

A single treatment with reserpine, the tranquilizing drug, produced a threefold increase in the remaining lifetime of mice in advanced stages of induced leukemia. This observation may open up a new group of possible antileukemic agents.

A new television camera tube used with a high-power microscope and an electronic oscilloscope permits study of chemical activity within live normal and cancerous mouse cells. Using ultraviolet light, the apparatus enlarges live cells 2,000 times normal size and projects the image on a TV monitor screen. Investigators can then take motion pictures of cell activities or directly observe hitherto hidden changes.

NATIONAL CHEMOTHERAPY PROGRAM

In its second year the Cancer Chemotherapy National Service Center initiated a hormone assay program to evaluate the endocrine

activity of compounds for possible use as anticancer agents, and a major screening program in the antibiotic field. It awarded training grants in clinical investigation, pharmacology, steroid biology, and biochemistry.

The pharmaceutical industry will submit annually more than 30,000 chemical compounds for screening. About 11,400 synthetic chemicals and 12,700 antibiotic culture filtrates were obtained for screening in 6 contract laboratories during 1957.

The Food and Drug Administration continued preclinical pharmacological testing of drugs. Two university laboratories will study the physiological disposition of drugs. The Chemotherapy Center simulated the establishment of a number of cooperative clinical study groups, representing some 75 medical schools and hospitals, for evaluating anticancer compounds in human patients.

GRANT-SUPPORTED RESEARCH

A grantee reported the development and successful use of a "midget" version of a billion-volt linear electron accelerator for radiation treatment of cancer patients. A 6,000,000-volt electron beam is converted into a high energy X-ray beam, which is adjustable to a pinpoint or to a spread of 400 square inches. Eighty percent of its output penetrates the body's deepest point, yet the rays are less damaging to intervening tissues than standard "softer" X-rays.

New studies with the anticancer drug Myleran were reported. Treatment of chronic leukemia produced significant remissions for periods up to 48 months in 14 out of 21 patients, with restoration of the white blood-cell count to normal.

About a year ago a grantee discovered a new virus that in 14 to 21 days caused a leukemia-like disease in almost all the mice inoculated. Previously reported viruses induced a similar disease in adult mice that had been inoculated at birth. The grantee recently developed a vaccine that rendered 80 percent of the animals immune to the new virus as long as 4 weeks after vaccination.

Quantitative determination of 17 amino acids in normal and tumor tissues of tumor-bearing mice showed significant differences in the amounts of one amino acid. Aspartic acid was present in a lower amount in tumor tissue than in other tissues. This difference may make the tumor susceptible to drug attack.

BIOSTATISTICAL AND FIELD INVESTIGATION STUDIES

As a possible means of curbing the sharp rise in lung cancer—particularly serious among men over 45—the Institute cosponsored a study group on smoking and health. As a result of the group's findings and other evidence, the Public Health Service issued a state-

ment calling attention to the fact that excessive cigarette smoking is one of the causative factors in lung cancer.

For 3 years NIH has collaborated with the Veterans' Administration on a followup study of more than 200,000 World War I veterans. Information compiled from replies to a questionnaire on smoking habits, from accurate medical records in veterans' hospitals, and from autopsy data made available when veterans die will provide data on the relation of smoking and various diseases, including lung cancer.

Results of a large-scale study of cytology as an aid to early detection of uterine cancer were summarized. The first examination of 108,000 women in the cervical cytology project in Memphis, Tenn., disclosed about 800 cases of cancer equally divided between intraepithelial and early invasive cervical cancer. Fully 90 percent of the intraepithelial cancers and 30 percent of the early invasive cancers were unsuspected. The case-finding rate in the second screening of 33,000 women was significantly lower than in the first screening.

To obtain additional data, NCI is operating eight cervical cytology projects and is establishing four projects to develop the use of cytology in diagnosing cancer of other sites—the lung, large intestine, urinary tract, and stomach.

Studies of environmental factors that may cause cancer include a long-range project to determine the incidence of cancer in uranium miners of the Colorado Plateau and to assess the effects of lengthy exposure to radiation from uranium.

CANCER CONTROL AND RESEARCH TRAINING

Health agencies in 47 States, 4 Territories, and the District of Columbia received grants of \$2,250,000 for support of their cancer control programs.

New training programs to increase manpower resources include research grants to institutions that select and appoint individual scientists for training; biometry and epidemiology training grants; and training of cytology technicians.

Institute of Dental Research

Oral diseases and abnormalities affect hundreds of thousands of people in this country. The degree of severity ranges from relatively minor afflictions to oral cancer and major systemic disturbances resulting from malformations and infections.

The program of the National Institute of Dental Research covers a broad area of basic and clinical research to attain more effective

control of dental caries and periodontal disease and to increase our knowledge of the causes of oral disease and its relation to general health.

Periodontal disease, an involvement of the supporting structures of the teeth, is found with increasing frequency among older people but may have its beginning earlier in life. Evidence for this is provided by recent epidemiological studies which show that children of high school age exhibit the initial stages of periodontal disease, often with a degree of severity usually considered to occur only in the later years of life. In the younger ages, girls are more severely affected than boys, but this situation is reversed beyond the teen age.

The role of inflammation in periodontal disease is being further elucidated by basic chemical studies. Investigations particularly related to various chemical aspects have shown that fluorides in the water supply do not adversely affect periodontal tissues.

Newly devised methods of isolation and identification of microbes to detect infection of the blood stream indicate that present estimates of the frequency of bacteremias following tooth extractions and periodontal treatment may be far too low. This finding emphasizes the need for better operative techniques to reduce the risk to patients with rheumatic fever and other heart disorders.

Other programs in the field of bacteriology will permit the study of oral diseases in experimental animals under germ-free conditions as well as in controlled conditions of exposure to selected microorganisms. Much progress can thus be made in discovering bacteria that are specifically implicated. Biochemical approaches are being utilized in other studies of dental caries in order to explore the role of proteins and minerals, basic enzyme reactions, and the application of heat to certain foods.

The field of clinical investigations is concerned particularly with general anesthesia, high-speed instrumentation, oral manifestations of endocrine and other systemic dysfunctions, etiology and treatment of oral and facial abnormalities, and genetic factors in oral and other diseases. The Institute's study of some 5,000 persons in Maryland is yielding important information on dental diseases and their relation to genetically determined pathologic conditions.

Histochemical, electron microscope, and X-ray studies of oral and related tissues are also contributing to a better understanding of tooth and bone formation.

During the year, the research grants program in dental health was substantially expanded. More than 90 percent of the Nation's dental schools are now receiving dental research grants from the National Institute of Dental Research. There were 265 dental research projects under way with the aid of grant funds in 1957, a fivefold in-

crease over 1956. A graduate training grant program was initiated in 15 dental schools in the various fields of clinical and basic science related to oral disease.

Heart Institute

Heart disease, which includes some 20 heart and blood vessel disorders, is the leading cause of death in the United States. Heart disease is also a major cause of disability, exacting a heavy toll in suffering and economic loss.

The National Heart Institute, with a much expanded program in 1957, is enlarging the Nation's capacity to deal with the problem. It conducts research in its own laboratories, supports research in institutions throughout the country, administers training programs to increase the skills of professional personnel in the field of cardiovascular disease, and helps develop community heart disease control programs. To stimulate research activities in the field of aging, a Center for Aging Research was established in the Institute.

Atherosclerosis, the form of hardening of the arteries that leads to heart attacks, is characterized by deposits of fatty materials in the walls of the blood vessels and is frequently associated with excesses of certain fatty substances in the blood. Hence, fuller understanding of normal and abnormal fat metabolism is a major research objective.

Fats absorbed from the intestines are transported to the tissues in the form of large molecular aggregates of fat and protein. NHI studies have shown that a lipoprotein lipase system is responsible for removal of the fat and its deposit in the tissues of the body. They have also shown that the unjoined fatty acids released from the body's fat depots by the action of a specific enzyme constitute a major resource in meeting the caloric requirements of tissues. The regulation of release and uptake of these fatty acids has been under study since it was found that interference in this process can lead to the appearance in blood of large fatty aggregates of the type most often associated with atherosclerosis.

Research in blood pressure has revealed a factor present in the plasma of patients with hypertension, but not in patients with other diseases or in normal persons. Studies are under way to determine the nature and significance of this material, which was recognized through its capacity to modify the contraction of the isolated heart.

Research on the chemistry of brain centers which control blood pressure and other automatic body functions had led to the theory that the stimulating and moderating functions are mediated by centers controlled by different chemical substances, known respectively as serotonin and norepinephrine. Drugs act on the brain centers by caus-

ing the release or preventing the action of those substances, suggesting new approaches to the central control of blood pressure. Other research indicates that serotonin may also play a role in allergic respiratory reactions.

Further progress has been made in defining the chain of events that lead from failure of the heart muscle to perform its work adequately to the eventual formation of edema (dropsy) as a result of the body's retention of excesses of salt and water. Previously, there was only inferential evidence that the last link in the chain is excessive secretion of certain hormones by the adrenal glands. This has now been demonstrated by the collection of blood directly from the adrenal veins in dogs with congestive heart failure. In another study, a substance present in normal blood, similar to digitalis in its effect on heart muscle contraction, has been isolated in pure form and its chemical structure identified.

Improvements in diagnostic and operative techniques are making possible the wider application of heart surgery, decreasing the risk, and improving results in heart disorders in which surgery has become standard treatment. Catheterization of the left side of the heart, which is reached by puncture through a bronchoscope, has proved a safe procedure. The technique, developed by the Institute, makes it possible to measure the gradients of pressure across heart valves suspected of deformity and thus to evaluate the extent of disease and, after operation, the adequacy of the corrective measure. Also, new methods have been devised to determine accurately the location of abnormal openings between heart chambers and to assess the functioning of heart valves.

The use of hypothermia has become a safe technique in heart surgery. The body is cooled to about 86 degrees so that circulation can be interrupted for six to eight minutes without damage to the brain. Resistant abnormalities in the rhythm of the heart have been virtually abolished by a novocain injection procedure devised in NHI laboratories. Other research has demonstrated that an injection of strophanthidin, a digitalis preparation, can avert heart muscle failure.

Preliminary findings of the Institute's study at Framingham, Mass., indicate that men aged 45 to 62 with any two of these three conditions—hypertension, overweight, high serum cholesterol—are about nine times as likely to develop coronary heart disease as men free of these conditions. The risk of developing coronary disease for men with hypertension is four times that of men with normal blood pressure. Men who were either greatly overweight or who had a high serum cholesterol count appeared to develop coronary disease three times as frequently as those who did not have these conditions.

GRANT-SUPPORTED RESEARCH

Significant accomplishments have been made through research grants, particularly in arteriosclerosis, hypertension, cerebral vascular disease, chronic pulmonary disease, and rheumatic fever.

A cooperative study on lipoproteins, begun in 1950, was completed during the year. This research, carried on in four institutions, involved 15,000 subjects with intensive study of about 5,000 men. It has provided information on the relation of cholesterol and fat-protein levels in the blood to the appearance of cardiovascular disease in previously well persons. Results have led to a national and international revaluation of these measurements as indicators of the probable development of coronary disease.

Grantees in several institutions continued intensive investigations of the relation of dietary factors to the production of atherosclerosis and high serum cholesterol. A number of studies have substantiated the theory that saturated fats tend to raise blood cholesterol and that unsaturated fats tend to lower the level. Other research indicates that the cholesterol level in the blood varies from one individual to another, and may be related to age, sex, diet, physical activity, and functioning of the liver and of endocrine glands such as the thyroid and the adrenals.

In high blood pressure research, studies of several pressure-lowering drugs, used either alone or in combination, have determined more specifically the relation of their action to heart, blood vessel, and kidney function. This has led to techniques which increase the effectiveness of these drugs and minimize the undesirable side effects of prolonged administration. The number and diversity of new drugs being developed by research and proving useful in the treatment of heart and blood vessel diseases have given rise to a great need for evaluation of drug therapy, particularly in the management of hypertension. A 5-year broad-scale study initiated in 1957 represents a step toward this goal.

The manner in which group A streptococcal infections bring about rheumatic fever and heart damage is still obscure. A number of investigators are attempting to determine the mechanism of bacterial action. At two institutions, methods were established for the isolation and identification of the antigens produced by the streptococci and for study of their physical and chemical properties. Other research groups are investigating products elaborated by the micro-organism, of which two—crystalline streptococcal proteinase and streptolysin O—are known to have an effect on the heart. Grant studies have shown that crystalline streptococcal proteinase may destroy heart muscle. Streptolysin O reduces its oxygen consumption, causing a reduction in the amplitude of its contraction.

Institute of Mental Health

New vigor and new measures hold promise for alleviation and eventual solution of mental illness and emotional disorders. Over a million persons are treated annually in mental hospitals, and thousands more are treated as outpatients. But the gains made last year in research and practice brought encouraging signs of progress.

There was a substantial increase in State and community mental health services. The National Institute of Mental Health met increasing requests for consultative services by: (1) providing special consultants in such fields as mental health in the schools, alcoholism, drug addiction, and industrial psychiatry; (2) conducting demonstration projects to identify school children having mental health problems, to improve mental health education, and to provide followup assistance for discharged narcotic addicts; and (3) making available technical assistance and resource personnel on specific problems.

Title V of the Health Amendments Act of 1956 (Public Law 911) authorized mental health project grants for the development of improved methods of care, treatment, and rehabilitation of the mentally ill. Institute staff participated in a survey of the need for construction of psychiatric facilities in Alaska to implement provisions of the Alaska Mental Health Act (Public Law 830).

On recommendations of the National Advisory Mental Health Council, the Institute increased its support of training for social workers, psychologists, and research workers in mental health. Pilot training projects were planned to improve methods of instruction for professional personnel who work with the mentally retarded, the aged, and juvenile delinquents. The Judge Baker Guidance Center of Boston, for example, will develop a training program in the field of juvenile delinquency. NIMH also continued its support of training for career teachers in mental health, of graduate training for mental health personnel, of improved psychiatric instruction for medical students, and of mental health courses for professional personnel in the fields of law and education.

The establishment of a joint research facility at Saint Elizabeths Hospital in Washington, D. C., provided the Institute with a hitherto unavailable research setting, that of the large mental hospital. Studies are planned of patients under combined pharmacological and psychotherapeutic regimens.

PSYCHOPHARMACOLOGY

During the year, the Institute carried on a \$1.5 million psychopharmacological program aimed at evaluation of the tranquilizing and other centrally acting drugs and broad implementation and

stimulation of basic and clinical drug research. Several activities were undertaken to provide greater understanding of the effectiveness and limitations of drugs in the treatment of mental illness, including a number of intensive laboratory and clinical studies. A Psychopharmacology Service Center was established as a clearinghouse on information relating to drug investigations and as a focal point for the administration of grants in this field. NIMH cooperated in the large scale, continuing clinical evaluation of psychopharmacological agents by the Veterans' Administration.

MENTAL HEALTH RESEARCH

In the field of clinical research, special "therapeutic communities" were organized and studied. In such communities, the patient lives in an environment geared to meet his special needs and designed to bring about a favorable change in his condition.

Family relationships as factors in the origin and remission of emotional and mental disorders were a focal interest of grant-supported projects and program development activities in the Institute. Examples are studies of young schizophrenic patients and immediate family members, of a group of hyperaggressive children and their families, of the effects of family relationships on posthospital rehabilitation, and of the adaptations of both patients and their families to mental illness.

Researchers representing various scientific disciplines contributed their skills and knowledge to an integrated effort by the Institute to obtain basic data on the psychological and physiological processes of aging and on the relation of the older person to his environment. Institute staff also cooperated in the work of the National Heart Institute's Center for Aging Research.

Scientists at NIMH and at the Public Health Service Hospital in Lexington, Ky., continued their research into the action and effects of LSD (lysergic acid diethylamide), a drug capable of inducing temporary states resembling psychoses. Studies of the drug's effect on normal individuals who volunteered for such experiments have provided important information on the enzyme systems involved in the metabolism of LSD within the human body. Moreover, they have demonstrated that the drug's metabolic end product fails to produce LSD's characteristic effects in man or animals—a finding related to the theory of enzyme disorder in the tissues of patients with certain types of psychoses.

NIMH biostatisticians began studies to provide a base for assessing the effect of the tranquilizing drugs on patients in mental institutions through analysis of long-term trends of resident population, admissions, releases, and deaths in the hospitals of certain States. Con-

tinuing collection and examination of data on characteristics of patients served by these institutions will supplement a comprehensive study on the geographic distribution of outpatient psychiatric facilities.

GRANT-SUPPORTED RESEARCH

With Institute support, numerous investigators throughout the Nation are conducting broad-scale research into mental health and mental illness. Grants for research in mental health increased in number and scope.

A new type of grant was awarded to Duke University for the establishment of a multi-disciplinary, large-scale center for research in aging. The center will be a regional resource of available scientific information on aging.

Typical of the Institute's range of extramural research are programs at Stanford University and the University of Michigan and Ypsilanti State Hospital. The Stanford investigation seeks knowledge of how information about child care and development is communicated to parents, and whether misinformation is related to the etiology of mental illness. The University of Michigan, in cooperation with the Ypsilanti State Hospital will study the physiological and psychological characteristics of schizophrenic patients.

The National Academy of Sciences and the National Research Council have been awarded a grant to investigate the effects of social and cultural variables on adjustment in disaster. Individual, family, and group adjustment will be studied intensively in two "laboratory" communities and by other techniques.

Institute of Neurological Diseases and Blindness

An estimated 20 million Americans are affected by neurological and sensory disabilities. Many cannot be productively employed or are severely limited in the types of jobs they can hold. To a great extent, the solution to this pressing problem lies in medical research.

During 1957 the National Institute of Neurological Diseases and Blindness moved ahead in such diverse areas as epilepsy, the blinding diseases, brain tumor detection, hearing research, and in such neuromuscular disorders as myasthenia gravis.

In epilepsy, good results continued in surgical investigation directed to controlling or eliminating seizures localized in the temporal lobe. Glaucoma, a serious blinding disorder which results from the increase of pressure within the eye, came under intensive study. A rich nerve supply was discovered in the area of the eye directly involved in the regulation of extraocular pressure, thus offering an important research lead for treatment and prevention.

A new research approach to the problems of deafness and hearing loss was opened up with an NINDB scientist's discovery of the olivocochlear bundle, a nerve system linking the cochlea of the inner ear with the brain. The finding supports the view that hearing is actually a two-way process in which the brain plays a "feedback" role—not, as previously believed, that the brain receives sound impulses but has no positive influence.

The early detection of brain tumors is often the key to saving a life. NINDB investigators have developed a detection technique that makes possible the precise location and definition of tumors deep within the brain. The technique, which combines the isotopic tracer method with electronic scanner and recording devices, is more than 80 percent effective in detecting tumors.

Myasthenia gravis is among the major neuromuscular disorders that involve the blockage or impeding of impulse transmission at the nerve-muscle junction. Important light on this problem may come from a fluorescence method devised for measuring minute quantities of acetylcholine, a chemical substance involved in the transmission of impulses from nerve to muscle.

An Institute scientist has developed an ingenious recording technique which should add much to our understanding of the nervous system. Using microelectrodes capable of recording electrical impulses of millionths of a volt in millionths of a second, and working with the nerve system of a squid, he has probed the synapse area of the ganglion—the infinitesimal space in which one nerve transmits impulses to another.

GRANT-SUPPORTED RESEARCH

Grantees in the Institute's extramural research program participated in a number of promising developments. One grantee has worked out a technique for diagnosing various neurological and eye disorders and for evaluating the effect of treating them with drugs. Known as electromyography of the extra-ocular muscles—the muscles that turn the eyeballs—the technique records electrical activity inside the muscles through a needle electrode. Diagnosis is made on the basis of a visualization of this activity as it appears on a television-type tube called an oscilloscope.

The past year has also seen significant developments relating to multiple sclerosis, a disease in which the central nervous system is attacked through the disintegration of the fatty sheath (myelin) covering the nerve fibers. Nutritional deficiencies were found to have an adverse effect on the regeneration of crushed nerves in animals. More specifically, the lack of vitamin B₁₂ retards remyelination. A means of growing myelin in the test tube has also been found. Thus,

it is possible to study myelin change under controlled laboratory conditions.

An Institute grantee has developed a multiple blood transfusion technique that is successful in preventing kernicterus, a form of cerebral palsy which attacks infants immediately after birth, and which is due to the blood incompatibility between mother and child known as the Rh factor. A followup study will determine the long-range effectiveness of the technique.

A large-scale investigation into the nature and causes of cerebral palsy, mental retardation, epilepsy, and allied disorders was begun by the Institute in 1957 and will continue for ten years or longer. Eleven schools are collaborating. The investigation, first of its kind, is specifically concerned with the adverse factors which bring on brain damage during the perinatal period—the time span from conception to about one month after birth.

Another long-range project will evaluate the existing treatments for cerebral stroke and shed new light on its nature and causes. Ten institutions have joined the Institute-sponsored study, coordinated by the University of Iowa.

Bureau of Medical Services

The Bureau of Medical Services operates the hospital and outpatient facilities of the Public Health Service and administers the programs of the Service that relate to care and protection of the individual. It is also responsible for foreign quarantine activities; the health program for American Indians; aid in the construction of community hospitals and health facilities; and development of the Nation's dental and nursing resources. It also gives professional supervision to members of the Service staff assigned to the health programs of other Federal agencies.

Hospitals and Outpatient Facilities

The Division of Hospitals operates the medical care program for American seamen and other legal beneficiaries of the Public Health Service. This nationwide activity began in 1798 with the Act "for the relief of sick and disabled seamen," the original legislation from which the Public Health Service has grown.

In addition to American seamen, the beneficiaries of the Public Health Service now include officers and enlisted men of the Coast Guard, officers and crew members of the Coast and Geodetic Survey, Commissioned Officers of the Public Health Service, civilian employees of the Federal Government injured in performing their work,

and several other groups. Persons with leprosy and men and women who are addicted to narcotic drugs as defined by statute are treated in special hospitals.

The Division also administers the Federal employee health program through which Federal departments at their request receive consultative assistance in establishing or improving health programs for their employees. The Division operates 23 separate health units for 45,000 employees of various Federal agencies in Washington, D. C., New York, and Denver, and the agencies reimburse the Public Health Service for this assistance.

In 1957 the Division maintained 16 hospitals, 25 outpatient clinics, and 99 outpatient offices.

Twelve of the hospitals provide general medical and surgical services; 1 is exclusively for patients with tuberculosis; 2 treat narcotic addiction and neuropsychiatric disorders; and 1 is for the care of persons with leprosy. Most of the hospitals are in major port cities, such as Boston, New York, Baltimore, New Orleans, Chicago, Detroit, San Francisco, and Seattle. In certain other places, depending upon the concentration of beneficiaries, outpatient clinics and outpatient offices have been established. Staffed by full-time personnel, the clinics provide a range of medical, dental, and allied health services. Local physicians conduct the outpatient offices in their private facilities on a part-time basis as needed.

VOLUME OF SERVICES

Admissions in all the hospitals rose 2 percent—from 48,627 in 1956 to 49,651 in 1957. The average daily census declined 1 percent, to 5,350. The number of outpatient visits was 1,098,278, an increase of 4 percent.

General Hospitals.—The general hospitals admitted 44,584 patients in 1957 compared with 43,399 in 1956. The average daily patient-load remained substantially the same at 2,759. The number of days of care per admission averaged 22.6, compared to 23.3 the previous year.

Tuberculosis.—The tuberculosis hospital at Manhattan Beach, Brooklyn, N. Y., admitted 422 patients in 1957 or 5 percent more than in 1956. The average daily census dropped 5 percent, reflecting the more rapid turnover of patients because of recent advances in chemotherapy and thoracic surgery. More patients discharged were able to return to duty in 1957 than in previous years. Since many who were discharged continue to receive chemotherapy, increasing attention was devoted to giving them follow-up care and guidance as outpatients. Cardiopulmonary function studies, including cardiac catheterization, were continued.

Rehabilitation activities were strengthened through added opportunities for instruction to patients wishing to qualify for high school equivalency diplomas granted by the University of the State of New York. The hospital continued to offer vocational evaluation and educational guidance for patients desiring to change their occupations.

Leprosy.—The hospital at Carville, La., is the only hospital in the United States devoted exclusively to the care and treatment of patients with leprosy. Patients receive complete medical care and full maintenance, including clothing. Anyone in the United States who has leprosy can be admitted. Services include not only the special medical, surgical, and dental therapy necessary to treat leprosy, but also treatment for general illnesses and injuries. Since the course of treatment for leprosy usually lasts several years, the hospital conducts social service and community participation programs with varied recreational and educational activities.

The sulfone drugs remain the "treatment of choice" at Carville. While the study of other drugs continues, workers in the field of leprosy agree that the sulfone series offers a comparatively effective form of therapy. Most sulfone-treated patients enjoy greatly improved general health. In most instances, the irreparable damage of long-standing leprosy can be avoided if treatment is started early. A stage of apparent arrest may be reached, and the patient may enjoy long periods relatively free from disease activity. The sulfone drugs work slowly; therefore, the search for a more efficient and quicker therapeutic agent continues.

Admissions to the hospital totaled 61 in 1957 compared with 59 the year before. The average daily census was 315.

Narcotic Addiction.—The hospitals in Lexington, Ky., and Fort Worth, Tex., treat narcotic addicts as defined by Federal law. They also serve mentally ill patients entitled to care as beneficiaries of the Federal Government.

In 1957 these hospitals admitted 4,584 patients, about 4 percent fewer than in 1956. There was a slight decline in the number of narcotic addicts admitted. The average daily census of addict patients was 1,390, the same as in the previous year. The fact that voluntary patients made up 87 percent of the admissions but only 44 percent of the average daily census indicates the addicts' weakened ability to control their use of narcotics and their tendency to leave the hospital before they achieve a reasonable recovery.

TRAINING AND CLINICAL INVESTIGATIONS

More than 250 physicians, dentists, pharmacists, and dietitians served internships and residencies in Public Health Service hospitals in 1957. Eight of the hospitals had approval for the postgraduate

training of physicians granted by the American Medical Association, and 8 were approved by the American Dental Association for dental internships. The American Dental Association approved a new 1-year residency program in oral surgery at the hospital on Staten Island, N. Y.

Through affiliation with colleges and technical schools, approximately 100 undergraduate students received practical experience and hospital instruction in physical, occupational, or vocational therapy; social service; practical nursing; and medical technology. The hospital in Baltimore trained six medical record librarians. The Staten Island hospital provided the clinical nursing portion of a course for hospital corpsmen given by the Coast Guard.

In 1957, the Division supported 31 research projects conducted at its field stations and recommended transmittal of 3 proposed clinical investigations to the National Heart Institute.

MEDICARE

The Dependents' Medical Care Act, which became effective December 7, 1956, authorized care in Public Health Service hospitals and clinics for active-duty and retired members of the Federal uniformed services and their dependents, and for dependents of deceased members of these services. This program—popularly known as Medicare—completed the first 6 months of operation in June 1957. The program resulted in an increase in patient loads in Public Health Service hospitals and clinics. The number of uniformed service personnel and dependents admitted to the hospitals in June 1957 was 1,001 or 8 percent more than in June 1956; the number of outpatient visits by these beneficiaries was 24,476 or 9 percent greater.

The average number of Department of Defense beneficiaries in Public Health Service hospitals during the month of May 1957 was 164, while the number of Public Health Service beneficiaries in Army, Navy and Air Force hospitals was 76.

EVALUATION OF HOSPITAL CARE

Five of the general hospitals were visited by study groups of national experts in hospital and medical care administration from outside the Federal Government. These groups usually included an internist, surgeon, pathologist, nurse, administrator, and comptroller. They appraised the quality of care given by the hospitals, with special attention to adequacy of personnel, equipment, supplies, physical facilities, and funds.

The teams reported that improvements in buildings and equipment were needed. However, they commended the hospitals for good

service in spite of the staff shortages and inadequate plants. Their reports form the basis for planning corrective action.

FREEDMEN'S HOSPITAL

Freedmen's Hospital, Washington, D. C., is a general medical and surgical hospital with provision for treating chronic chest diseases. It serves also as a university hospital conducting programs in medical education in cooperation with the College of Medicine of Howard University, in Washington. Freedmen's Hospital operates teaching programs in nursing, dietetics, pharmacy, social service, and hospital administration. It has 320 beds for general medical and surgical patients, 50 bassinets, and 150 beds in the annex for patients who have chronic chest diseases.

The hospital admitted 13,715 patients in 1957, a substantial increase over the 11,638 in 1956. The daily average census was 361, compared with 366 the previous year. The outpatient service, consisting of 34 clinics and the emergency room, had a total of 91,022 visits, compared with 79,400 in 1956.

Nearly 50 clinical investigation projects covering a wide range of medical and health problems were in progress during the year.

The School of Nursing had 85 students, with 31 in the graduating class. The National League for Nursing reviewed the nursing education program during the year and gave approval.

The hospital provided graduate training for 42 medical residents, 18 medical interns, 4 medical externs, 2 dental interns, and 6 clinical research fellows; it also served as a training facility for junior and senior medical students. Ten dietitians completed an internship program in their field offered by the hospital and approved by the American Dietetic Association.

The hospital continued to cooperate in a teaching program leading to the master's degree in hospital administration. To qualify, students must have completed requirements of a university offering an approved course in hospital administration. The program is conducted on a preceptorship basis and meets standards acceptable to the American Hospital Association, the American College of Hospital Administrators, and the Association of University Programs in Hospital Administration. Through 1957, 13 men have been "administrative residents" at Freedmen's Hospital in this program.

The pharmacy internship program follows the pattern established by the American Hospital Association, the American Pharmaceutical Association, and the American Society of Hospital Pharmacists. Two interns completed the course in 1957. Two students from Howard University's School of Social Work were accepted for field training in medical social work.

Foreign Quarantine

In 1957 no cases of the quarantinable diseases—smallpox, yellow fever, plague, cholera, and louse-borne relapsing fever and typhus—were reported in the United States. This was the fourth year of freedom from smallpox, although the disease was epidemic in several other parts of the world and was imported by airplane travel in three places in Europe (Naples, Hamburg, London). The smallpox vaccination requirement for international travelers, administered by the Division of Foreign Quarantine, was a significant factor in keeping this nation free of the disease.

Health authorities believe that the possibility of reintroduction of yellow fever in this country is greater now than it has been for many years. The disease was known to be present in 1957 in Guatemala near the Mexican border and in British Honduras; mosquitoes that can transmit yellow fever are present in Mexico and throughout the southern part of this country. The Division of Foreign Quarantine strengthened measures against introduction of yellow fever infection in persons or monkeys arriving from infected areas, and against importation of mosquitoes on ships, planes, or land conveyances. As a first line of defense, it began an expanded program to eradicate *Aedes aegypti* (yellow fever mosquito) at southern airports, dock areas, and border entry points.

Typhus occurs in certain parts of Mexico. To help prevent typhus from appearing in this country, Mexican migratory laborers are treated with DDT on entering the United States.

With few exceptions, recent reports of human plague infection have been confined to rural areas of certain countries in Africa, South America, and Asia. The ports of Mandalay and Phanthiet in Asia were infected in the past year. Plague will remain a minor problem in international traffic only as long as sanitary requirements for ships and ports are meticulously maintained.

Cholera continued to occur in India, Burma, and Pakistan. The incidence in India was the highest since the great epidemic of 1953. In general, relapsing fever has remained a problem only in parts of Africa.

Epidemic influenza in the Orient became a matter of serious concern in April 1957 upon receipt of a report of an epidemic affecting 250,000 persons in Hong Kong. It was evident at once that introduction of the disease into this country through international air and sea traffic could not be prevented. The full resources of the Division were mobilized to minimize the impact which the disease could have through international traffic. All sources of information were used to keep apprised, on a daily basis, of the places of occurrence of influenza in relation to international travel routes. Medical officers at international

airports and seaports worked out an integrated operation with local and State health personnel of their areas to detect and report all actual or suspected cases of influenza entering this country. Complete co-operation was received from air and surface carriers, including commercial and military transport. The Air Force, Navy, Army, and all civilian health agencies immediately made available both personnel and laboratory facilities to detect or diagnose influenza.

Because the speed of modern travel enables a traveler to enter the country during the incubation period of influenza, every person arriving from an infected area was advised to go to a physician promptly in case of illness, and to inform the physician of his area of travel. Thus the occurrence of influenza in the United States was made known immediately to physicians and State health departments.

INTERNATIONAL TRAFFIC VOLUME

International traffic subject to Public Health Service requirements continued to increase. Airplanes inspected for quarantine or immigration-medical purposes increased from 56,891 in 1956 to 61,892 this year; ships inspected from 30,126 to 34,779; arriving persons subject to quarantine regulations from 46,993,370 to 52,253,263; smallpox vaccinations by quarantine officers from 485,967 to 541,891. The number of persons released subject to further medical examination at destination increased from 9,670 in 1956 to 23,173 in 1957; persons detained in isolation at ports increased from 3 to 37.

MEDICAL EXAMINATIONS

Refugee Relief Program.—The year saw the termination of the Refugee Relief Act of 1953, under which a special program of immigration-medical examinations was conducted. Altogether, from the start of the program, services were provided abroad for examination of 206,204 applicants in Austria, Belgium, Denmark, Egypt, England, France, Germany, Greece, Iran, Italy, Jordan, Kuwait, Lebanon, the Netherlands, Norway, Sweden, Turkey, and the Far East. Disease conditions excludable under the immigration law were detected in 3,796 applicants. Refugees arriving here were reexamined for the Immigration and Naturalization Service; in all, 179,552 such examinations were made, and only 21 refugees were found to have excludable conditions.

The incidence of excludable conditions among the 206,204 refugees examined abroad during the Refugee Relief Program was greater than among the 178,941 regular immigrants examined abroad in 1957. Percentages were as follows: mental conditions, 0.28 percent of refugees, 0.15 percent of regular immigrants; tuberculosis, 1.33 percent of refugees, 1.03 percent of regular immigrants; dangerous con-

tagious diseases, 0.23 percent of refugees, 0.06 percent of regular immigrants.

Hungarian Refugees.—The mass migration of Hungarian refugees starting in November 1956 taxed the medical examination facilities of the Public Health Service. Facilities were improvised to administer the required examinations for great numbers of people. The Division of Foreign Quarantine expanded its immigration-medical examination operations in Austria and provided emergency staffing for the refugee reception center at Camp Kilmer, N. J. At the peak of activity in December 1956 the Vienna and Salzburg offices together were examining about 1,500 refugees daily. More than 26,000 were examined in 7 weeks. By the end of the year 33,413 refugees had been examined on admission to the United States; refugees having conditions that usually prevent entry were admitted under parole when they had assurance of sponsorship and treatment.

Tuberculosis, and the diagnosis of cases as active or inactive, was the chief problem. The medical officer at Camp Kilmer convened a board of tuberculosis experts from the Army, State and local health departments, and the Public Health Service, to restudy cases detected by medical examiners here and in Europe. Hospitalization of 423 cases was required, but 231 of these were released to be observed as outpatients. Arrangements were made for States and localities to provide hospital beds in communities where patients' families settled.

Regular Immigration Services.—The number of aliens other than refugees examined abroad by Public Health Service officers increased from 194,736 in 1956 to 206,754 in 1957; most of them were prospective immigrants. The number examined in this country increased from 2,111,237 to 2,598,741; these were chiefly crew members and temporary visitors. A total of 5,924 aliens were certified abroad and in the United States for diseases excludable under the immigration law.

Farm Placement.—In the farm placement program of recruiting agricultural workers from Mexico, 440,332 laborers were examined, with 5,587 rejections, at 3 migratory centers in Mexico; and 457,360 examinations were made with 5,578 rejections, at 5 reception centers in California, Arizona, and Texas.

OTHER QUARANTINE ACTIVITIES

The enactment of Public Law 85-58, which became effective June 21, 1957, provided for a marked change in quarantine operations by permitting 24-hour inspection service. Overtime inspections will be performed on request, subject to reimbursement by transportation companies in most cases.

The Division issued a field directive on precautions to be taken by personnel handling importation of psittacine birds. Need for the directive had been shown by reports of psittacosis contracted by port personnel from contact with birds brought from other countries.

The Division published a statement of sanitary measures required for the travel of aliens who have tuberculosis. This is intended to prevent the spread of infection when aliens with tuberculosis are admitted for treatment, or as immigrants under special legislation.

Eight additional yellow fever vaccination centers were designated to meet the need created by increased travel. This made a total of 81 centers in health departments and private clinics, and 33 in Public Health Service facilities.

Health Services for Indians

The second full year of operation of the Indian health program by the Public Health Service was marked by a continuation of improvements in facilities and services charted at the time this program was transferred from the Bureau of Indian Affairs in July 1955. Increases in both the volume and the quality of health services were made possible by the addition of some new Indian health staff members and by plant improvements in 1957. The Division of Indian Health provided more services to greater numbers of beneficiaries than ever before.

The 1957 appropriation for Indian health activities was \$38,775,000. An additional sum of \$8.76 million was appropriated to meet critical needs for construction and major alterations.

Approximately 370,000 Indians and Alaska Natives depend upon the Public Health Service for medical, hospital, and dental care, and preventive services such as those provided for the general public by local health departments. These beneficiaries include an estimated 335,000 Indians in 24 States, and 35,000 Alaskan Indians, Aleuts, and Eskimos.

Most illnesses and fully a third of the deaths among the Indians could be prevented by modern control measures. Deaths from tuberculosis, gastro-enteric diseases, and other communicable diseases are 3 to 10 times higher than in the general population. Twenty-four percent of all Indian deaths occur among infants, compared with only 7 percent for the population as a whole. This is the major factor in the early average age at time of death among Indians—30, compared with 60 for the general population.

Many of the Indians and Alaska Natives are isolated both culturally and geographically. Most of them were born into an environment which is itself a hazard to health. In many cases their sanitary facili-

ties are crude and inadequate, or entirely lacking. Often their water is scarce, and is obtained from contaminated sources.

THERAPEUTIC SERVICES

Hospital care and other health services are provided at 56 hospitals operated by the Public Health Service and at more than 270 non-Federal hospitals through contractual arrangements. Diagnosis and ambulatory patient care are given at health centers, field health stations, and other locations totaling more than 200. Medical services also are rendered by 160 contract physicians and dentists.

For the second consecutive year, hospital admissions increased by nearly 15 percent. Admissions totaled more than 66,000 including 13,000 in contract facilities. The average daily census in the hospitals operated by the Service was 2,785—an increase of 5 percent over 1956. However, possibly as a result of earlier and more effective treatment, there was a decline in the length of stay per admission. Therapeutic and preventive services provided in hospital outpatient clinics increased 17 percent to a total of 657,474.

With these increases in medical care have come improvements in hospital operations. Specialists' consultation from outside sources was increased substantially. Professional pharmacists now supervise the dispensing and storage of drugs at 16 of the hospitals and at all 6 of the area offices which administer the program in the field. The pharmacists compounded and dispensed 107,000 prescriptions for 248,000 hospital outpatients and provided supervision of pharmaceutical services in the small hospitals and clinics.

Although the nationwide nurse shortage poses a continuing problem in recruitment, there was a net increase in nursing personnel. Medical social workers contributed to hospital operations significantly by facilitating the discharge of 250 chronically ill patients. These individuals no longer needed hospitalization, but lacked homes or relatives to care for them.

Shortages of ancillary medical, administrative, housekeeping, and maintenance personnel remained serious. Despite these shortages, hospital staffing patterns were improved. Full accreditation of the Fort Defiance and Tuba City hospitals, both in Arizona, brought to 10 the number of accredited Indian hospitals.

PREVENTIVE HEALTH SERVICES

The major challenge in Indian health continues to be the prevention of disease. Much of the effort for prevention is carried on in field health facilities which are dispersed over 250 reservations and in Indian communities. Preventive services at hospital outpatient clinics alone increased 33 percent over 1956. Notable increases in-

cluded prenatal, 36 percent; well baby, 64 percent; and immunizations, 36 percent.

The increase in public health nursing services begun in 1956 was continued in 1957 and medical social service was provided in selected contract medical facilities. Health education, which receives professional supervision in 4 of the 6 geographic areas, was expanded by increasing the professional staff from 7 to 10. The number of community workers in health education (most of whom are Indians) was increased from 12 to 24, and 4 health education aides were added.

One of the major approaches to reducing the high incidence of preventable diseases among Indians is the improvement of environmental health controls and sanitary practices. The professional sanitation staff was increased from 22 to 35, and the number of sanitarian aides (outside of Alaska) from 51 to 65.

Environmental sanitation surveys were completed for 18 water systems, 19 waste disposal systems, 21 Indian schools, and 5 other facilities. Sanitation surveys were made of 11,000 Indian homes, and 18,000 homes were sprayed in fly-control demonstrations. Indian sanitarian aides trained by the Service now work on 117 reservations inhabited by 60 percent of the Indian population. In Alaska, Eskimo aides serve 25 native villages.

Nutrition and dietetic services were expanded through employment of a dietary consultant and three public health nutritionists to begin working on nutrition problems in two selected areas, and appointment of a Consultant Committee on Nutrition Research to review critically nutrition research projects essential to the solution of some of the basic health problems.

TUBERCULOSIS CONTROL

Although tuberculosis is no longer the leading cause of death among the Indians, it is still a formidable health problem. From 1950 to 1955—the latest year for which data are available—the tuberculosis death rate for Indians was cut from 102 per 100,000 population to 46. Among Alaska Natives, the reduction was even more spectacular—from 630.1 per 100,000 to 100. There is evidence that the downward trends are continuing. Among both Indians and Alaska Natives, however, tuberculosis death rates and incidence are several times higher than in the general population. A new system for keeping full, accurate check on tuberculous patients was developed during the year, and is being instituted in the field.

The 4 tuberculosis hospitals operated by the Division, together with facilities used through contractual arrangements, are adequate for the hospitalization of all known tuberculous beneficiaries who need this care and who are willing to accept it.

Chemotherapy nurses dispense medications, visit patients, carry out tuberculin testing, and find new cases. In Alaska, this work is done under contract with the Alaska Department of Health. Contracts are in effect with several State health departments for case-finding, treatment, and followup activities. Research to find more effective means of control is conducted for the Service by Cornell University and the University of Pennsylvania's Phipps Institute.

DENTAL SERVICES

Unmet dental needs among the Indians and Alaska Natives are enormous. For the second consecutive year the Division increased its dental staff, adding 30 new positions. In 1957 the staff averaged 73 dental officers and 75 assistants and laboratory technicians. This expansion brought oral health services to additional groups of beneficiaries which had not received dental service in the past. During the year, 72,479 patients received treatment requiring 135,000 visits—an increase of 20,000 visits over 1956. Services were provided in 66 clinics, at 211 transient locations, and through contracts with 14 private dentists.

SERVICES TO MOTHERS AND CHILDREN

Adequate health care of Indian mothers and infants would go far in reducing the excessive death rates among mothers and children and reducing the sickness and handicap rates among children. In one year, disorders of pregnancy and childbirth resulted in a death rate of 6.2 per 100,000 among Indians compared with a rate of 1.5 in the general population.

Of every 1,000 Indian infants born alive in 1955, 60 did not survive the first year. By contrast, only 26 of each 1,000 infants in the general population die in the first year. The Indian infant death rate for the first day is actually less than that in the general population, and for the first week of life it is about the same. This reflects the early care that Indian babies receive in hospitals operated by the Public Health Service. However, for the period between the first and eleventh month, the Indian death rate is nearly 6 times that for the general population.

Maternal and child health services include care of mothers during pregnancy and childbirth, health supervision of infants and preschool children, treatment of the sick, and health instruction of parents. During 1957 the professional staff in this specialty was expanded, and the first full-time pediatrician was assigned in the field to provide guidance to other health personnel.

Physical examinations of children beginning school were improved both in number and quality. Specialists' examinations for glasses

and hearing aids were provided for a larger proportion of the school children who need them. These and other improvements have been achieved through closer cooperation between Indian health personnel and school personnel.

A problem that once was considered solved appeared again in 1957. Surveys among Indian school children confirmed that trachoma again is prevalent. A diagnostic and treatment program for dealing with this eye disease was organized under a leading authority on trachoma. Measures to control the disease are being taken wherever it is known to exist. A pilot project to determine the most effective methods of case finding, treatment, and followup is being established in the Phoenix area.

TRAINING OF INDIANS

Formal courses and in-service training are provided for Indians employed in the Indian health program. Practical nurses were trained by the Service in schools in Albuquerque, N. Mex., and Mount Edgecumbe, Alaska. The twenty-fifth class was graduated by the Albuquerque school in 1957. Courses for sanitarian aides were conducted at Phoenix, Ariz., and in Alaska, and dental assistants and technicians were trained at several locations. Community health workers received on-the-job training supervised by university schools of public health. More than 100 Indian and Alaska Native employees received training during 1957.

CONSTRUCTION

The appropriation for construction and major alterations of health facilities provided funds to build 3 new hospitals which the Congress authorized in Gallup, N. Mex.; Sells, Ariz.; and Kotzebue, Alaska. Funds for construction of a new hospital in Shiprock, Ariz., were appropriated in 1956.

The \$8,762,000 construction appropriation included \$1 million for new housing for health personnel, mostly at remote locations. One million dollars also was provided for major alterations to old hospitals, clinics, and related facilities.

LEGISLATION

Two laws affecting Indian health were enacted shortly after the end of the fiscal year. Public Law 85-151, approved August 16, authorized the use of funds available for construction of Indian health facilities to assist in the construction of community general hospitals to serve both Indians and others. Any construction under provisions of this law will be coordinated with the Hospital and Medical Facilities Survey and Construction program.

Public Law 85-137, approved August 14, authorized construction of sewer and water lines and domestic appurtenances for the Elko, Nev., Indian Colony. A supplemental appropriation provided \$34,000 for this work.

Health Facilities Construction Program

The Division of Hospital and Medical Facilities administers the Hospital and Medical Facilities Survey and Construction Program. The legislation of 1946 authorizing this program was amended in 1954 to put more emphasis on construction of hospitals for the chronically ill and impaired, diagnostic and treatment facilities, and rehabilitation facilities, and to include nursing homes. In 1957 the appropriation for all types of construction grants was \$123.8 million, including \$21 million for the new phase of the program.

The first hospital built with the aid of a grant under this program was opened in October 1948. By June 1957, 3,514 hospitals, health centers, and related facilities were approved for construction. Of these, 2,346 were completed and rendering community service, and 953 were under construction. The remainder were in the planning and preconstruction stages. The total cost of all projects is \$2,875 million, toward which State and local sources contributed \$1,972 million. Two dollars in State and local funds are being spent for every Federal dollar. Federal aid for these projects amounted to \$903 million.

The 3,514 projects will add 152,593 beds and 824 projects for outpatient care to the Nation's health resources. Of the beds, 121,456 are in general hospitals; 13,245 in mental hospitals; 7,118 in tuberculosis hospitals; 7,064 in chronic disease hospitals; and 3,710 in nursing homes. Facilities for outpatient care include 610 public health centers (plus 85 public health centers built in combination with general hospitals), 131 diagnostic or treatment centers, 62 rehabilitation facilities, and 21 State health laboratories.

Of the 1,111 new general hospitals, 564 are in communities that had no hospitals before the program was begun, and 271 are in communities where the only hospital was obsolete or unsuitable. Fifty-three percent of all the new facilities are located in communities of less than 5,000 population, and only 13 percent are in cities of more than 50,000.

Fifty-six percent of the new hospitals have fewer than 50 beds and only 22 percent have 100 beds or more. Among the larger projects are teaching hospitals approved for intern and residency training. Thus, in addition to meeting rural needs, the program is serving the training needs of larger institutions.

DEFICIT OF HOSPITAL BEDS

The deficit of hospital beds is still reported by the States as more than 800,000 beds, although in 11 years projects have been approved through this program which will provide 152,593 beds, and an even greater amount of hospital construction has been completed without Federal aid. The need for hospital beds is accentuated by a population increase which now exceeds 3 million annually. Also, large numbers of hospitals that have been in use for many years are becoming obsolete and in need of modernization to meet present standards.

Additional facilities for early diagnosis and treatment of ambulatory patients would reduce the demand for beds in general hospitals. The aging of the population has intensified the need for facilities for the chronically ill. People over 65 require an average of twice the number of days of hospitalization as those under 65. Many patients now in general hospitals could be cared for in chronic disease hospitals or nursing homes at less cost than is possible in the general hospital.

The amendments of 1954 were designed to help meet these needs. Under the new phase of the program alone, 344 projects were approved by June 30, 1957, including 80 nursing homes and 71 chronic-disease facilities. The total estimated cost of these 344 facilities is \$187,769,567. At the end of the fiscal year, 14 projects were completed and in use.

RESEARCH IN HOSPITAL SERVICES

Grants for research, experiments, and demonstrations relating to the effective development and utilization of hospital facilities, services, and resources were authorized by Congress in 1949. In 1956, \$1.2 million was appropriated for this type of research, and a like amount was made available in 1957. Forty grants to hospitals, health organizations, and health agencies for research in hospital services were made during the two years.

Dental Resources

Increasing shortages of dentists, combined with rising demands for dental care, accentuate the need for informed planning to train more dentists and auxiliary personnel, and for more efficient use of existing manpower. To assist in meeting these needs, the Division of Dental Resources broadened its research program. Studies of manpower requirements, supply, and distribution were expanded. Experimental educational projects and studies of the functions of dental assistants were begun. Research in prepaid dental care and patterns of treatment needs and demands was increased.

DENTAL MANPOWER

Growing deficits in dentist supply are nationwide, affecting areas formerly well supplied. A study completed by the Division in collaboration with the American Dental Association, the W. K. Kellogg Foundation, and the Western Interstate Commission for Higher Education projected manpower trends through 1975 in 11 Western States, Alaska, and Hawaii. It showed the Western supply of dental manpower, now among the Nation's best, beginning to fall behind; by 1975 shortages may be critical unless training facilities are greatly expanded.

A similar survey of the South, for the Southern Regional Education Board, was completed. Although recently its supply of dentists has gained slightly, the South is still the least well supplied section. Two further studies were begun, one of New England, and one for the Nation as a whole.

Scholarships and student aid programs may also be needed. An analysis of dental students' characteristics, finances, and practice plans, completed in cooperation with the American Dental Association, indicated that high educational costs leave most dental and dental hygiene students in debt and may impede future enrollments.

Auxiliary personnel are an important component of dental manpower. In cooperation with the American Dental Hygienists' Association, the first national survey of dental hygienists was completed and published; it evaluated supply, distribution, practice plans, job opportunities, and school facilities.

Wider use of chairside dental assistants would enable dentists to treat more patients because individual treatment time would be shortened. To find effective ways of teaching dental students to work with aides, pilot projects sponsored by the Public Health Service were undertaken by 6 dental schools. One of these included summer training for dental assistants.

PREPAID DENTAL CARE

Because of close correlation between ability to pay and demands for dental services, prepaid dental care, which lowers cost barriers, may spur demands for needed care. Both the number of plans and interest in them are growing. To fill requests from groups interested in organizing prepayment programs, a national inventory was prepared, describing organization, administration, eligibility rules, coverages, and rates of existing prepayment plans.

Since growth of prepayment makes more cost and utilization data essential, research in this field was increased. An analysis of how St. Louis Labor Health Institute members utilize clinic facilities was continued to provide workload and cost estimates for a relatively

low-income group. A similar study of dental services supplied to Public Health Service and Coast Guard families was begun. Two studies of maintenance service patterns also were started. One covers various age groups at the Group Health Association dental clinic, Washington, D. C. The other covers children enrolled in prepayment plans in California, Oregon, and Washington.

Nursing Resources

The most important new development in nursing is the growing trend toward use of scientific research techniques in solving problems associated with giving patients more and better care.

In 1957 the Division of Nursing Resources became increasingly the national center for assistance with research in nursing. The program now includes not only the development of study methods and manuals but also the training of nurses and other professional personnel for research in nursing. In addition, the Division guides the new program through which graduate nurses are preparing for teaching or nursing administration.

These activities have been added to the Division's continuing program of studies on the care of patients: analyses of how nursing time is spent in hospital assignments; job satisfaction and personnel turnover; and review of other situations which create an impression of nursing shortage or which are caused by actual shortages of personnel throughout the hospital. Through 1957, the Division had assisted with 149 studies of hospital nursing services. The participating hospitals represent 1.2 million patients annually who benefit from subsequent improved services.

RESEARCH GRANTS AND FELLOWSHIPS

The Division awarded \$529,000 in grants for research in nursing, approving 18 new projects in 1957. This program, conducted in cooperation with the National Institutes of Health, has granted more than \$1 million since its inception in 1956, for 39 research projects. To a large extent these projects explore areas of nursing care never before investigated. In addition, 81 fellowships in nursing research amounting to \$121,000 were awarded; in the two years of this program 170 fellowships totaling \$246,000 have been awarded.

TRAINEESHIPS

The Health Amendments Act of 1956 authorized the appropriation of funds for traineeships for graduate nurses wishing to obtain advanced preparation for teaching, supervision, and administration. The \$2 million appropriated was allocated to 56 institutions in 23

States which awarded 553 full-year traineeships to individual nurses, also 34 partial traineeships. Of the nurses aided, 50 percent enrolled in programs designed to prepare them to teach in schools of nursing; and 50 percent enrolled in courses in nursing administration or supervision.

STUDIES OF PATIENT CARE

Opinions expressed by 20,000 patients and personnel in 60 hospitals were analyzed to see whether satisfaction with nursing care had any relationship to the general impression of nurse shortage. The complaint expressed most frequently was that nurses could not spend enough time with their patients. Nurses felt this even more keenly than their patients. More than two-thirds of the patients were highly satisfied with their nursing care.

HOW NURSES SPEND THEIR TIME

Since World War II, hospitals have sought ways of avoiding the loss of scarce nursing skills which occurs when nurses perform non-nursing duties, which take her away from the patient. A method of studying this loss, devised by the Division in 1951, has been revised and refined and is now available for use in studying activities of the supervisor, head nurse, staff nursing personnel, and personnel of the outpatient departments. Encouraged by the Division, many hospitals have made studies of their nursing services. More than 50 hospitals found that staff nurses and practical nurses spent 76 percent of their time functioning at the level for which they had been trained; aides and orderlies spent 68 percent, and clerks 86 percent, in the duties for which they were trained. Head nurses, however, performed head-nurse functions only 50 percent of the time and spent only 23 percent of their working day with patients. Staff nurses spent only 38 percent of their time with patients. Other nursing personnel were with patients 47 percent of the time. This situation, in which professional nurses are with patients less than 25 percent of the time although functioning more than 75 percent of their time at their proper level, suggests the need for action to bring nurse and patient more frequently together. The fact that patients see nonprofessional personnel far more frequently than they see professional nurses may explain why patients believe there is a "shortage" of nurses.

In 1957 the Division trained 76 nurses in Tennessee to conduct these utilization studies and the State hospital association planned studies in 62 hospitals. A nurse consultant of the Division was assigned to Region IV for 2 months; she gave consultation to 27 agencies in 5 States and held 7 training sessions for 81 key nursing personnel on how to study nursing activities. As a result, 12 utiliza-

tion studies were conducted. In Utah, 7 hospitals studied nursing activities. Consultation on utilization of nurses was given a group of small hospitals in Missouri, and corrective action was begun.

TURNOVER OF NURSING PERSONNEL

Almost 67 percent of hospital staff nurses and 70 percent of nursing aides and orderlies change jobs each year. It costs the hospital at least \$125 each time an employee resigns—an amount which could be saved if the causes of turnover were known and could be eliminated or minimized.

The Division studied 51 hospitals which submitted turnover data and supplemented these findings by studies of job satisfaction in 18 hospitals. Administrative and supervisory nursing personnel proved to be the most stable. The practical nurse resigns least often in small hospitals where her status receives the greatest recognition. Aides seek and retain employment chiefly on a short-term basis.

The relationship of turnover to job satisfaction is very complex. Employees leave to be with husband or wife, to work nearer home or in a more modern facility, to be with friends, or to obtain conveniences such as air-conditioning. Young people change jobs more frequently than the older age group. Among staff nurses, relatively few indicate that working conditions cause dissatisfaction with their jobs. Many, however, say they leave because they do not have enough time to spend with patients.

For the most part, employees leave less often when there is good supervision, good communication between personnel at all levels, and a generally constructive atmosphere throughout the hospital. When turnover is reduced, productivity and quality of work improve; patients receive better care and are better satisfied.

Medical Services for Federal Agencies

The Public Health Service is responsible for providing medical services to certain other Federal agencies, both in this Department and in other Departments. Through the Bureau of Medical Services, medical, psychiatric, dental, nursing, and other personnel are assigned on a reimbursable basis to agencies that request assistance in operating their medical programs.

OFFICE OF VOCATIONAL REHABILITATION

Officers detailed to the Office of Vocational Rehabilitation provided professional direction and basic staff for its medical program. In-service training of medical and medically-related personnel of State rehabilitation agencies was a major activity. Two regional institutes

were conducted for State medical administrative consultants. Working relationships between State mental health programs and vocational rehabilitation agencies were strengthened; three regional conferences for this purpose were held, sponsored by the National Institute of Mental Health and universities. Assistance was provided in a training program to increase the number of specialists in physical medicine and in strengthening medical school curricula in the rehabilitation phases of medicine. The officers also assisted in administering rehabilitation facilities provisions of the 1954 amendments to the Hospital and Medical Facilities Survey and Construction Act and in helping communities plan and establish rehabilitation centers.

BUREAU OF OLD-AGE AND SURVIVORS INSURANCE, SOCIAL SECURITY ADMINISTRATION

Six medical officers were detailed to the Division of Disability Operations of this Bureau in 1957. As members of the medical staff they participated in administering the disability provisions of the Social Security Act. Their principal activities were consultation on medical policy and procedure at national and State levels; development of medical standards for the determination of permanent and total disability; training of personnel; liaison with medical groups; and medical consultation to the General Counsel of the Department.

BUREAU OF PUBLIC ASSISTANCE, SOCIAL SECURITY ADMINISTRATION

The medical officer assigned to this program serves as medical consultant on all phases of public assistance. Most of his work in 1957 was connected with plans to put into effect the new medical care provisions of the Social Security Act as amended in 1956; a new formula for matching payments to vendors of medical services was to become effective July 1, 1957. The medical officer visited 24 States for field consultation.

OFFICE OF EDUCATION

A nurse director of the Public Health Service was assigned to the Division of Vocational Education of the Office of Education in connection with the program of vocational education in practical nurse training authorized by the Health Amendments Act of 1956. Most of her work was assisting the States in developing plans to extend and improve educational programs in practical nursing.

UNITED STATES COAST GUARD, TREASURY DEPARTMENT

Ninety-one Public Health Service officers were on duty with the Coast Guard, including 32 physicians, 46 dentists, 10 nurses, a phar-

macist, a sanitary engineer, and a scientist. Medical officers were assigned to ocean vessels and to ocean weather stations; both a doctor and a dentist were assigned to the vessel engaged in the Bering Sea Patrol.

During the year, dental officers assigned to this program revised the dental requirements for all Coast Guard personnel, except enlisted men in the Reserve. Improvements were made in sanitary engineering services on Coast Guard vessels and installations.

MARITIME ADMINISTRATION, DEPARTMENT OF COMMERCE

The medical officer assigned to the Maritime Administration supervised preparation of clinical abstracts and provided professional counsel to the Office of Seamen's Services and the legal and insurance departments.

A senior surgeon and two dental officers served at the U. S. Merchant Marine Academy, Kings Point, N. Y. The medical program included administration of the academy hospital and outpatient clinic as well as care of beneficiaries. The medical officer in charge of the Public Health Service hospital on Staten Island was assigned to the hospital as consultant and was responsible for professional supervision.

FOREIGN SERVICE, DEPARTMENT OF STATE

The medical unit, directed by a Public Health Service officer, gave between 50 and 60 physical examinations a day to members of the Foreign Service. The medical director visited 24 missions in South America to inspect health and sanitary conditions and observe the medical care Foreign Service personnel were receiving in local facilities from local physicians. The associate medical director went to Africa and the Middle East to visit 33 missions for the same purpose.

BUREAU OF PRISONS, DEPARTMENT OF JUSTICE

The Public Health Service continued to provide medical care for the Federal prison system, which includes 30 institutions. Officers and employees of the Service assigned to penal hospitals and clinics not only provided medical services but supported the administrators of the institutions in developing personnel training programs and other means of rehabilitating prisoners.

About 40,000 prisoners were provided with medical care. There were 13,606 admissions to the hospitals for a total of 427,038 days; 921 major operations and 5,472 minor operations; 27 births and 44 deaths. The outpatient clinics gave 823,114 treatments and 24,058 physical examinations.

As in previous years, medical research in which prisoners volunteered for various tests was carried on in several institutions. The use of chloroquinized salt to suppress malaria was successfully demonstrated. Development of a new psychological test for use of offenders of various ages was virtually completed. Other research in progress included experiments with d-lysergic acid and a search for antidotes; study of the development of delinquent gangs; gathering of data on effects of industrial noises on hearing; study of rates of DDT in absorption and excretion; and studies of the value of orally administered attenuated poliomyelitis vaccine.

Prisoners in 20 institutions donated 8,636 pints of blood to Red Cross and local blood banks, establishing a new record.

BUREAU OF EMPLOYEES' COMPENSATION, DEPARTMENT OF LABOR

Medical care and compensation are provided Federal civilian employees for injuries in performance of duty and illness attributable to conditions of employment. Medical care is provided by Federal medical officers and hospitals where available and by about 3,000 designated private physicians in areas where Federal hospitals are not available. Hospitals, clinics and other facilities of the Public Health Service are utilized to a large extent. Medical officers of the Public Health Service administer and supervise the medical care program, serve as technical advisers in adjudication of cases, and assist in the staff educational program of the Bureau of Employees' Compensation.

In 1957 special studies were conducted, in cooperation with the Public Health Service Hospital in New Orleans, La., to find out whether there are latent or delayed effects of mustard-gas poisoning. Studies of hearing loss cases leading to development of formulas to determine disability through loss of hearing also were made.

A statistical study revealed a decline in the number of nonfatal injuries reported during the 5 years 1951 to 1955. It showed significant reductions in tuberculosis, eye disabilities, traumatic injuries of the hands, and traumatic injuries to the head and neck; no change in occurrence of hernia cases; and an increase in the number of back injury cases.

Bureau of State Services

The Bureau of State Services cooperates with States, professional organizations, and other health groups to apply public health programs which will control and prevent disease. In addition to pro-

viding financial, technical, and consultative services nationally, it administers Federal health activities in which the United States participates abroad.

Division of General Health Services

The Division of General Health Services administers grants-in-aid to the States, conducts a research program in Arctic health, coordinates the Nation's vital statistics program, provides services in public health nursing and public health education, administers a traineeship program for public health workers, and does exploratory work in new program areas.

STATE GRANTS

For the first time, grants for public health services were made available to Guam, and Alaska received authority to develop an integrated mental health program, including construction of mental health facilities within the Territory.

Federal funds amounting to \$203,013,000 were available in fiscal 1957 for grants-in-aid to States on health programs. This amount included \$123,800,000 for hospital and medical facilities construction and \$50,000,000 for waste treatment works construction. Actual payments were made as follows:

| | |
|---|------------------------|
| General health services..... | \$11,962,098 |
| Venereal disease special projects..... | ¹ 1,669,801 |
| Tuberculosis control..... | 4,485,949 |
| Mental health activities..... | 3,949,845 |
| Cancer control..... | 2,235,318 |
| Heart disease control..... | 1,987,983 |
| Medical facilities survey and planning..... | 383,878 |
| Construction of community facilities..... | 301,875 |
| Hospital and medical facilities construction..... | 71,503,847 |
| Waste treatment works construction..... | 843,735 |
| Water pollution control..... | ² 1,864,463 |
| Poliomyelitis vaccine assistance..... | 28,849,606 |

¹ Includes \$470,083 in services and supplies furnished in lieu of cash.

² Includes \$181,132 paid to interstate agencies.

In addition to the above, payments totaling \$890,912 were made for traineeships under the Public Health Traineeship Program and \$160,771 for training and demonstration projects in air pollution control.

POLIOMYELITIS VACCINE ACTIVITY

The Poliomyelitis Vaccination Assistance Act of 1955 expired at the end of fiscal 1957, at which time about \$53.2 million was expended from \$53.6 million appropriated.

The PHS continued an active surveillance program over the production, distribution, and use of poliomyelitis vaccine. In cooperation with the American Medical Association, the National Foundation for Infantile Paralysis, and State health officials, the Service urged the use of the vaccine. About 91 million cubic centimeters of polio vaccine were produced during the year, and sufficient vaccine was available to provide a full 3-dose immunization to 46 percent of the population under age 40.

ARCTIC HEALTH RESEARCH CENTER

A research project in an Alaskan Indian village sought basic information about diseases of the eye, middle ear, and respiratory tract. Initial physical examinations showed high frequency of inactive tuberculosis, widespread dental caries often neglected, many middle ear conditions, and that about 30 percent of the population had presumptive hypertension usually without evidence of cardiovascular diseases.

A food intake study on Alaskan Eskimos and Indians in their native villages pointed out wide differences in diet, with pre-school children having the most deficient diet of any age group. Exploratory studies were begun to find a possible relationship between the moderate anemia found in Alaskan natives and the fish tape-worm infection prevalent in many areas.

Using different types of construction materials for comparative study, 2 experimental houses were built in remote areas as part of the Native Village Sanitation Program.

Three additional cases of methoglobinemia, a rarity in other parts of the world, were discovered during the year in the course of nutritional studies, making a total of 15 cases to date. Intensive clinical studies of the cases led to the conclusion that some enzymatic factor, lying between reduced nucleotides and methoglobin, is missing from red cells of those with the condition. The missing component in patients' cells may be replaced by such substances as methylene blue, ascorbic acid, and riboflavin. A beginning has been made to isolate the enzyme factor from normal blood.

EMERGENCY HEALTH SERVICES

This program, discontinued at the end of fiscal year 1957, supplied leadership to develop and improve State, regional, and local plans for civil defense and natural disaster activities, including action to insure continuity of government health functions in the event of an enemy attack. The staff helped develop and participated in Operation Alert 1957.

Drought, hurricane, tornado, and flood damage was extensive during the year. Additional disaster relief assistance was needed, especially in the South and the Southwest. The Service sent supplies, equip-

ment, and reserve manpower to the stricken areas. Program guides were distributed to State and local health agencies on the sanitary aspects of mass evacuation, and the detection of chemical warfare agents in water.

PROGRAM DEVELOPMENT

In cooperation with the Children's Bureau, State and local health agencies, and others interested in migrant health problems, the Division devised a health record to be carried by migrant workers. A plan was developed to use the record on a pilot basis to learn its value as an aid in providing continuity of health services to this mobile group. A review of immunization programs for agricultural migrants indicated that more flexible immunization schedules could be followed without impairing the effectiveness of the treatment.

In the school health area, the State of Florida received staff assistance in organizing a State school health program. Major emphasis was placed on the orientation and training of health coordinators for schools.

PUBLIC HEALTH EDUCATION

Staff activity sought to learn how to get the individual to assume good health habits as well as how to achieve more effective public health programs through community action.

Some significant research studies dealt with: factors influencing participation of the public in tuberculosis case-finding programs; staff turnover and job satisfaction among hospital personnel; and identification of barriers to adequate certification of death and ways to overcome them. In an effort to improve adjustment of heart patients to their disease, an exploratory study was made in a city-county health department to determine patient reactions. These findings will be used to develop a large scale sampling study in the same area.

Preliminary action began on the problems of integrating health services in a community; developing methods to measure quality of nursing care; identification of health needs of people as they see them; personal and situational factors influencing a person's decision to take specific health actions; and cultural determinants of health behavior.

In conjunction with State and local health departments and other agencies technical assistance went into studies of the social and psychological conditions which predispose to heart disease, and the reactions of local citizens to a natural disaster.

PUBLIC HEALTH NURSING

Increased interest in the school health problem by Boards of Education is reflected in a Biennial Census of Nurses Employed for Public Health Nursing which showed a 20-percent gain in school nurses hired during the biennium. The report revealed a total of 29,396 nurses employed in all public health fields.

In cooperation with the University of Minnesota's Public Health Nursing Section, the Division set up a project to operate extension courses in public health nursing to further the academic preparation of nurses who are unable to take full-time university study.

Data analysis was completed on a field study of nursing services to individuals offered by local health departments. The study will be published under the titles: "Amount of Nursing Service Required by a Household" and "The Distribution of Nursing Services to Individuals According to Diagnostic Category."

Staff assistance was given to a school nursing study in Montgomery County, Maryland, and to work measurement studies in Seattle, Washington, and Spartanburg, South Carolina. The staff also consulted with a National Red Cross Committee on revision of its Home Nursing Handbook to make it more useful in civil defense programs.

At the request of the Iranian Government, a staff member helped to organize a program for nursing in Iran, as one segment of the country's long term health plans.

TRAINING

Stimulated by the traineeship program authorized by Title I of the Health Amendments Act of 1956, the downward trend in the number of persons receiving specialized public health training was reversed. Under this program, funds were provided for the training of 363 persons. In addition, State and local health departments increased their traineeships by 8 percent over 1956. Thus a total of 764 persons received advanced training with the aid of public funds during the 1957 academic year.

NATIONAL OFFICE OF VITAL STATISTICS

The National Office of Vital Statistics is responsible for the collection, tabulation, analysis, and publication of national data on births, deaths, marriages, divorces, communicable diseases, and for the conduct of special statistical studies in the field of health and demography. Vital statistics are essential to administrative and research activities of business, government, medicine, public health, and other aspects of our society. The Office also cooperates with the

World Health Organization and its member countries to develop comparable international statistics.

A highlight of fiscal year 1957 was the establishment of a Marriage Registration Area to improve the knowledge of marriage statistics. Pilot studies of marriage registration completeness were conducted in three States. At the request of the Bureau of the Census, estimates of births in the U. S., by months, from 1915 to 1952 were prepared for use in studying possible relationships between fertility and economic trends. To provide an estimate of future demands for poliomyelitis vaccine, a national poliomyelitis survey was made.

The development of the Model Vital Statistics Act entered its final stages, and a guide to statistics in the field of home accident prevention was developed. 1956 State legislative activity relating to vital statistics and records was summarized.

In cooperation with the National Health Survey, a study was made on the hospital utilization experiences of recently deceased residents of the Middle Atlantic States. A sample survey study to develop methods and procedures was conducted in conjunction with the National Cancer Institute and the Pennsylvania Department of Health.

Division of Special Health Services

The Division of Special Health Services acts on health maintenance problems associated with accident prevention, medical aspects of air pollution and radiological health, long term illness, heart disease, occupational health, and tuberculosis.

ACCIDENT PREVENTION

The Accident Prevention Program conducts studies and investigations, and helps develop control measures to reduce accidental injuries and deaths.

Plans were begun to extend established public health epidemiologic techniques to accidental deaths and injuries in order to develop a better understanding of basic factors involved. A group of studies was planned to learn the role of physical conditions and emotional factors involved in accident causation. Since initial first aid applied, as well as later medical care received, often determines the extent of recovery from accidental injury, studies were planned to determine the adequacy of care and ways to improve it.

At the request of the American Academy of Pediatrics and the American Public Health Association, a National Clearinghouse for Poison Control Centers was established. With the rapid expansion of local poison control centers, this PHS unit will help to spread information about new toxic products, effective methods of treatment, and to analyze trends in fatal and non-fatal accidental poisonings.

AIR POLLUTION MEDICAL PROGRAM

Fiscal 1957 saw research emphasis shifting from laboratory work on air pollution to study of its effects upon people and their communities.

In cooperation with the National Institutes of Health, action began in three major areas: (a) effects upon the respiratory system, particularly the phenomena of hypersensitivity and allergenicity; (b) effects on the cardiovascular system, especially the extent to which cardiovascular and pulmonary respiratory conditions are aggravated by air pollution; (c) eye effects, with emphasis on eye irritation. Other studies began on the relationship of air pollution variations to the incidence and progression of various diseases; air pollution by specific industries (initial studies in steel and lead storage battery industries); and effects of different kinds of air pollution.

CHRONIC DISEASE CONTROL

This year the Chronic Disease Control Program expanded its activities against diseases and crippling conditions which are among the leading causes of death and disability in the U. S. Research projects included evaluation of screening and diagnostic tests for diabetes and glaucoma; studies in the prevention of diabetes and its complications; evaluation of periodic health examinations as a vehicle for attacking the problems of older age groups; action on the relationship of chronic illness to application for social service; and appraisal of programs dealing with long term illness and health of the aged.

A significant achievement was concerned with abnormal carbohydrate metabolism in pregnancy conducted in the prenatal clinic of the Boston City Hospital, Massachusetts. Preliminary data showed that more women with abnormal CHO metabolism had large babies (9 pounds or more) than other mothers included in the study. After treatment with insulin during pregnancy, however, mothers with abnormal CHO metabolism had about the same proportion of large babies as women without this condition. As a result of these and other findings, efforts will be made to determine the relationship between the birth of a large baby and the later development of diabetes.

National data collected from more than 120,000 persons known to have been screened for diabetes showed a rate of previously undiagnosed diabetes of about seven per thousand persons tested.

Staff members worked with the State health departments of Michigan, New Jersey, New York, and Ohio, as well as the Memphis-Shelby County Health Department, Tennessee and the University of Tennessee Medical School, to develop five long range diabetes screening programs.

In an effort to demonstrate the extent to which a patient may become a more valuable member of the health team, a physician, nurse and nutritionist gave weekly group instructions to 300 patients in the Diabetic Clinic, Boston on administration of insulin, urine testing, diet instruction, and general patient care.

Plans have been initiated to augment consultation services to the States toward improving standards of care in nursing homes.

HEART DISEASE CONTROL

Because of a shortage of medical personnel in local communities, the Program assigned medical officers to 11 States requesting assistance to expand control activities. New rheumatic fever and heart disease control programs were begun in Illinois, Missouri, Wisconsin, and Colorado; epidemiological studies were initiated in North Dakota, Georgia, Connecticut, and Florida; and health units and diagnostic facilities were organized in Georgia, Tennessee, Florida, and California.

A study showing geographic variations in mortality from heart disease has helped to define the problem in this country. Further study of population groups with high and low death rates were begun. These studies may give clues on factors responsible for the disease.

Planning was begun with the Department of Commerce on a proposed nationwide survey of body weight measurements among men, for use in studies on the apparent relationship between overweight and the development of heart disease.

Coronary and control groups are undergoing study to learn the social and psychological factors which may predispose a person to develop heart disease.

New data revealed that heart disease patients detected by mass X-ray surveys, when followed by intensive medical and nursing care, have about 1 percent reduction in mortality during the three year period following participation.

Studies of mortality showed that deaths due to hypertension have dropped sharply since 1953, due possibly to increased use of hypotensive drugs.

Pilot studies are being made among Indians, and certain population groups whose diet is largely vegetarian, to learn if such factors as dietary fat intake and blood lipid concentration may be related to heart disease prevalence rates.

OCCUPATIONAL HEALTH

The Occupational Health Program promotes measures to improve the health of workers both on and off the job.

To help industry protect its workers from health hazards arising from the great number of chemicals introduced each year, an Occu-

pational Health Information Exchange was set up in the program's field headquarters in Cincinnati, Ohio. The Exchange will serve as a clearinghouse for information on the nature and extent of new disease problems in industry, total occupational health resources available, and methods for stimulating additional research on continuing industrial hazards.

Occupational health experiments with laboratory animals yielded information which may help to evaluate possible hazards to the general population from ozone-containing smog. Seven factors have been found to affect the toxicity of ozone. Youth, physical exertion, alcohol, and respiratory infection tend to exacerbate the injurious response; while intermittent exposure, premedication, and preexposure, either reduce or eliminate the injurious effects.

From long range continuing studies by the PHS on health hazards in uranium mines, it was found that radiation dosage from breathing a radon-containing atmosphere arises mainly from radon daughter products accompanying radon in the air. Engineering controls developed by the program are being applied by the uranium mining industry to keep the concentrations of radon and its daughter products within recommended limits.

Millions of workers in the U. S., especially those in small plants and business establishments, still do not have the benefit of employee health services. To determine obstacles to progress in this area, a study of managerial attitudes and evaluations was conducted for the Occupational Health Program by the University of Michigan's Institute of Social Research. Data collected in five separate communities revealed management's chief consideration in the development and expansion of employee health services is the improvement of employee-management relationships. Of secondary import is the financial benefit resulting from decreased absenteeism and lowered workmen's compensation costs. Significant also was the finding that management welcomes and seeks assistance from health department personnel in the expansion of employee health services.

A revaluation of silicosis in the Vermont granite industry was completed. Only one possible case of early silicosis has been diagnosed among workers who began their employment in the granite industry since the time when dust control measures were introduced in 1937.

RADIOLOGICAL HEALTH MEDICAL PROGRAM

A new unit, the Radiological Health Medical Branch, was set up to plan health services in connection with the exposure of the population to ionizing radiation. During the year there was increased recognition of the importance of medical and dental X-rays in the exposure to such radiation.

Consultation on the development of legislation and regulations in radiological health was given to State agencies. Of particular significance was the adoption of measures by one State banning the use of fluoroscopes as shoe-fitting devices.

A cooperative activity conducted with the Division of Sanitary Engineering Services and the Atomic Energy Commission was the Medical Liaison Officer Network set up nationally to aid in the investigation of instances of human disease and injury alleged to be related to the Continental Nuclear Weapons Tests. This group also assisted in the training of State health personnel working with ionizing radiation.

At the request of the United Nations Scientific Committee on the Biological Effects of Atomic Radiation, a study was begun on the feasibility of keeping radiation exposure records for the entire population of the United States.

TUBERCULOSIS CONTROL

Recent prevalence estimates show that there were 800,000 cases of tuberculosis in the United States in 1956, of which 250,000 were active. This represents a decline since 1952 of 30 percent in the active group and 10 percent in the inactive.

Human studies of isoniazid as a preventive of tuberculosis were begun in 1956, involving contacts of new active cases in communities throughout the country. A pilot study to evaluate isoniazid as a preventive of complications of primary tuberculosis in children includes over 2,600 children in 33 pediatric clinics.

Continuing evaluation of antimicrobial therapy confirmed the superiority of isoniazid plus PAS in treatment. Preliminary results of an uncompleted study indicated that Streptomycin plus Pyrazinamide may be as effective but more toxic. Immunization studies continue to show that most of the new tuberculosis cases appear among initially tuberculin positive members of the study population. Incidence has been greatest among those who had strong tuberculin reactions. This observation is confirmed by a recent report of tuberculosis morbidity in about 70,000 Navy recruits. These results emphasize the need to concentrate control efforts on the tuberculin positive segments of the population.

In cooperation with a Committee on the Care of the Unhospitalized Tuberculosis Patient, steps were taken to develop standards for home care of patients with tuberculosis. To help communities define their problem in this area, a "Guide for Conducting an Unhospitalized Tuberculosis Patient Study" was prepared.

A statement on the role of X-ray case-finding programs in tuberculosis control discussed modifications in X-ray case-finding activities

necessitated by changes in the control problem and by findings concerning the significance of relatively low level radiation exposure. The selective use of mass X-ray surveys was recommended.

Initial research evaluated three major social problems concerning adequate care for tuberculosis patients: legal residency, means tests, and forcible hospitalization. Statistical studies of trends in the number and use of tuberculosis hospital beds were also made. To meet one of the more significant developments in this area, a "Guide for a Tuberculosis Control Program for General Hospitals" was published.

Division of Sanitary Engineering Services

The Division of Sanitary Engineering Services helps States, industry, civic groups, and other Federal agencies identify and solve environmental health problems.

ROBERT A. TAFT SANITARY ENGINEERING CENTER

The Robert A. Taft Sanitary Engineering Center at Cincinnati, Ohio, is the Nation's largest facility devoted to sanitary engineering research. Major activities involve basic and applied research, training, and technical consultation on water supply and water pollution control, sewage and industrial wastes disposal, milk and food sanitation, radiological health, and air pollution problems.

AIR POLLUTION ENGINEERING

The National Air Sampling Network was designed to provide the basic data necessary to an understanding of the national air pollution problem. The Network was developed in cooperation with State and local authorities. One hundred ten urban and 14 nonurban stations distributed in every State and major population area participated in the program involving the collection, identification, and measurement of particulate and gaseous components of polluted air. The Sanitary Engineering Center is the headquarters of the Network.

Studies of automotive exhaust, various types of incineration, and the removal of sulfur dioxide from stack gases are being conducted in cooperation with the Bureau of Mines at their facilities.

Eleven grants were awarded to ten universities to initiate or expand curricula in air pollution engineering, under the provisions of Public Law 159. Nine traineeships were awarded to individuals for training in air pollution.

Statewide appraisals of air pollution problems were made in Connecticut, Tennessee, and Washington. City surveys were completed for Denver, Colorado, Steubenville, Ohio, and Portland, Oregon.

Major field studies were under way in the New York-New Jersey area and in Louisville, Kentucky. Considerable research support was given to California and the Los Angeles County Air Pollution Control District for the solution of smog problems.

GENERAL ENGINEERING

Eight Special Citations, the largest number annually to date, were awarded to interstate carrier companies for achieving high standards of sanitation in all travel conveyances operated during the year.

An Ad Hoc Study Group was called together to define national needs in the field of solid waste disposal. The group recommended that the Public Health Service intensify its efforts in training, research, and education of the public in proper methods of storing and disposing of solid wastes.

Special planning for sanitation involved in the construction of a nuclear powered passenger vessel, engaged in jointly with the Maritime Administration and the Atomic Energy Commission, will greatly affect construction and operation of future American flag vessels.

Because new buses offer food service and sanitary facilities, it was necessary to plan for review of bus construction and inspection of the buses, as well as bus-servicing areas and food-catering establishments.

In cooperation with the Pan American Sanitary Organization and the Pan American Union, the staff continued to develop and recommend sanitation practices to give improved health protection to travelers in Inter-American countries.

In consultation with other Federal agencies, the transportation industry, and drug companies, a new section of the Interstate Quarantine Regulation to cover shipment of etiologic agents was developed and adopted.

MILK AND FOOD SANITATION

Five representative milksheds of the Nation were used as sampling points for collecting milk in a pilot study to gather data on the levels of radioactivity in typical milk supplies. The study was conducted with the cooperation of State and local agencies and the milk industry. Information on feeding practices and water supplies for animals in the milksheds was also obtained for use in interpreting laboratory findings.

Designed to promote uniformity of State and local vending machine regulations, a guidebook entitled, "The Vending of Foods and Beverages: A Sanitation Ordinance and Code—1957 Recommendations of the Public Health Service" was developed and distributed to the States and the industry.

Reports on simultaneous studies made on dry milk at the Sanitary Engineering Center, the Universities of Wisconsin and Minnesota, and by the American Dry Milk Institute, confirmed the hypothesis that the 1957 outbreaks of food poisoning in Puerto Rico were caused by a preformed toxin, probably of bacterial origin, which was present in dry milk. The reports indicated that enterotoxigenic staphylococci will grow prolifically in concentrated milk when organisms exist at one stage prior to drying.

The milk and food staff, with the Committee on Poultry Hygiene of the American Public Health Association, developed basic principles for the official inspection of poultry for wholesomeness; and with State and local officials, engaged in poultry sanitation surveys of processing plants, and further developed a set of effective poultry sanitation ordinances.

RADIOLOGICAL HEALTH

The Service continued its offsite monitoring activities at the Atomic Energy Commission Nevada atomic weapons test-site.

Under an agreement with the Atomic Energy Commission's Division of Biology and Medicine, a 40-station nationwide air and rain-water radiation surveillance network was operated.

Program personnel, together with staff from the Division's Interstate Carrier Branch, the Atomic Energy Commission, and the Coast Guard reviewed cooperative interests on present and future problems connected with design and operation of nuclear-powered merchant ships.

WATER SUPPLY AND WATER POLLUTION CONTROL

The new Federal Water Pollution Control Act (PL 660) authorized grants to assist municipalities in the construction of needed sewage treatment plants. A total of \$50 million per year up to a \$500 million aggregate was authorized. Of the more than 1,000 applications for grants totaling over \$97.9 million, received in fiscal 1957, 446 requests involving \$37.9 million, were approved.

A hearing board, acting on a complaint of interstate pollution in the Corney Drainage System, found that oil field wastes originating in Arkansas were affecting water uses in Louisiana. Upon an order to cease and desist such interstate pollution, the 75 oil well lease operators involved corrected the situation.

Compilation of background data on the status of more than 100 interstate pollution problem areas was begun during 1957. Three conferences on interstate pollution were called by the Surgeon General.

Digests of present State water pollution control laws are being made to provide a basis for further refining the Suggested State

Water Pollution Control Act originally developed by the PHS in 1950 as a guide to States to improve their laws.

Preliminary work toward the establishment of water quality baseline data on the Nation's streams was started during the year, when 10 of the 250 sampling stations proposed for strategic location throughout the country began operating daily. Data collected will be used to show the present quality of water, the degree of pollution, and the extent of water quality improvement.

Revisions of 1955-56 data on water supply facilities were made in order to determine more adequately the location of critical facilities and their vulnerability to nuclear weapons attack. Standards are being developed to enable water utilities to reduce injury to personnel and minimize damage to facilities.

Research was extended to provide information on the ability of conventional treatment processes to cope with economic poisons, including insecticides which reach water through drainage from agricultural lands and fish killing preparations.

A nationwide study of the effectiveness of municipal water treatment plants in removing coliform organisms substantiated earlier findings that modern plants could handle extremely high loadings.

ENGINEERING RESOURCES

A survey of sanitary engineers in the Nation, conducted jointly with the National Science Foundation, was completed.

During 1957, grants for sanitary engineering and occupational health research were doubled, and there now is a backlog of approved grants awaiting the availability of funds. The grants are awarded through the Division of Research Grants.

The Commissioned Officers Student Training Extern Program for sanitary engineers was initiated this year. About 14 students were employed for the summer months.

Forty-five persons were awarded training grants for sanitary engineering courses under the provisions of PL 911, an act designed to bring more people into the health professions.

Communicable Disease Center

The control of infectious disease is the mission of the Communicable Disease Center (CDC), which is located in Atlanta, Ga., with laboratories and field stations in various parts of the United States.

In cooperation with the States, the Center develops national programs against communicable diseases through direct aid in epidemics and disasters, continuing field studies on the epidemiology of diseases, laboratory investigations, development of materials and

methods of disease control, consultations and demonstrations, and training of public health personnel. The direction of the Center's continuing program is influenced by specific needs encountered during epidemic and disaster situations.

During the past year, the Venereal Disease Control Program was transferred from the Division of Special Health Services to the Communicable Disease Center.

EPIDEMIC AND DISASTER AID

CDC supplemented State health resources in 23 epidemics involving various diseases and in 20 disasters.

REPRESENTATIVE FIELD AND LABORATORY INVESTIGATIONS

Poliomyelitis

The Center continued to maintain a poliomyelitis surveillance program. The effectiveness of the poliomyelitis vaccine was evaluated through broad epidemiological observations and laboratory studies. Regular reports on the status of the disease were compiled for national distribution.

Laboratory investigations of outbreaks of nonparalytic poliomyelitis led to a change of diagnosis from polio to polio-like disease (aseptic meningitis, etc.) in approximately 50 percent of the cases. So far, clinical investigations have failed to disclose any signs or symptoms which, in individual cases, could be used to differentiate true nonparalytic polio from other aseptic meningitis.

Respiratory Diseases

A Respiratory Disease Unit was organized to undertake studies on the influenza viruses, the adenoviruses, and other viral agents which attack the respiratory tract.

In connection with the outbreaks of Asian influenza in this country, the Center kept national health officials apprised of developments, assisted pharmaceutical houses in formulating monovalent vaccines and initiated studies on the potency and effectiveness of these products, and provided prototype viruses and diagnostic reagents to over 100 laboratories.

Venereal Diseases

Reported cases of syphilis in fiscal year 1957 rose for the second successive year; 135,543 cases in all stages were reported by State health departments. This was 7.4 percent above the number reported in the continental United States in 1956 and 11.0 percent above the number reported in 1955. Early infectious cases showed a slight decline.

The number of cases of gonorrhea reported this year was 216,476 as compared with 233,333 cases reported in 1956, a decline of 6.4 percent. Approximately 52 percent of all infectious venereal disease occurred in the 15- to 24-year age group which represents 13 percent of the total population.

Since underreporting of venereal disease morbidity continues to be a problem, several States inaugurated programs to stimulate complete reporting of cases by private physicians and to provide epidemiological services.

A new blood test for syphilis, the Rapid Plasma Reagin (RPR) method, which gives on-the-spot results, has proved highly adaptable to mass testing in situations where it is advantageous to treat reactors immediately.

Cluster testing, a newly developed case-finding technique involving serologic screening of friends and associates of known infected persons, was found to be 30 percent more effective than traditional epidemiological methods.

Viral Encephalitis

Human cases of Saint Louis encephalitis (SLE) occurred widely in the Midwest, and in recognized outbreaks in the Texas Panhandle, in the Louisville, Ky. area, and in the Missouri River Valley. Eastern equine encephalitis (EEE) was seen in a distinct small outbreak of human cases in Massachusetts. The Center continued its investigations on the ecologic interrelationships of the encephalitis viruses, their mosquito vectors and reservoirs, and the specific circumstances under which the diseases occur in man and domestic animals.

Diphtheria

In recent years, localized sharp outbreaks of diphtheria have occurred in every part of the Nation, but a disproportionately large number of cases are still seen in the South. Throughout the North and the West, older children and adults have exhibited an increasing susceptibility. To understand the overall problem better, immunity studies are being conducted on adults in parts of the South.

Rabies

Although the incidence of canine rabies is declining, the dog is still the most important vector of this disease. Reported cases in wild animals, notably foxes and skunks, are increasing and stringent control measures are needed to deal with this reservoir.

Since 1953, 175 cases of rabies in insectivorous bats have been diagnosed in 17 widely scattered States, but the significance of the disease in these creatures is not yet fully understood.

There were 10 human deaths from rabies in 1956. Methods of pre-exposure immunization for humans have been sought, since the Pasteur treatment is increasingly hazardous with repeated courses. Preliminary results of antibody studies in humans showed that a single booster inoculation of HEP (high-egg passage) Flury rabies vaccine elicited immediate and robust serum neutralization antibody responses in more than 90 percent of people who had some history of previous rabies immunization.

Psittacosis

There was a slight rise in national incidence of human psittacosis, with California, Pennsylvania, Wisconsin, and Minnesota reporting the largest number of cases. Parakeets and poultry were incriminated about equally when source of infection was known.

Typhoid Fever

Epidemiologists traced 22 cases of typhoid fever (1 fatal) disseminated to 7 States by participants at a convention held in MonArk Springs, Mo. *Salmonella typhi* phage C-2 was isolated from stools in 16 of the cases and from an asymptomatic known typhoid carrier who attended the meeting. Fluorescein dye tests showed a connection between the water supply and the sewage system.

Staphylococcus Diseases

Present methods of control are inadequate to handle infections due to antibiotic resistant strains of staphylococci among hospitalized patients. CDC has now identified some of the previously unidentified strains.

LABORATORY ACTIVITIES

The Center provided diagnostic services for State and Territorial laboratories, Federal agencies, and foreign countries by identifying 40,000 troublesome isolates. When satisfactory diagnostic reagents are not available commercially, CDC produces limited numbers and amounts for internal use and for State laboratories.

In a large proportion of specimens from cases clinically diagnosed as poliomyelitis which failed to yield polio virus, other agents, particularly of the ECHO, Cocksackie, and Buffalo groups, and a number of unknowns were recovered. Contracts for diagnostic services on these agents have been established with 34 laboratories, principally in academic institutions.

Experiments with attenuated Type 1 and Type 3 polio viruses suggest that these strains are promising candidates for a live virus vaccine.

Laboratories of the Communicable Disease Center sought to extend the application of fluorescent antibody techniques to rapid identification of a wide variety of bacteria and parasites, thus enabling early treatment and control.

VECTOR CONTROL PROBLEMS

Insect resistance to one or more of the insecticides normally used for their control is the most serious single problem confronting organized vector programs throughout the world. Forty insect species of public health importance are now known to be resistant. CDC developed a testing kit, using standardized materials, for evaluating resistance of adult mosquitoes to DDT and dieldrin and determined resistance baselines for two species of mosquitoes.

No clinical or laboratory evidence of abnormalities resulted from intensive and prolonged occupational exposure of 40 men to DDT, although 26 of them had absorbed approximately 200 times the normal dietary intake of the insecticide for intervals as long as 6.5 years.

Studies continued on composting of municipal refuse and garbage as a disposal method which precludes feeding and breeding of disease-bearing insects and other vermin.

TRAINING

More than 8,200 persons from a variety of organizations in this country and from abroad received training in epidemiology, environmental control of communicable diseases, laboratory diagnostic methods, civil defense, disaster aid, and other subjects offered by CDC.

Division of Dental Public Health

The Division of Dental Health directs studies on the magnitude of the dental problem in the United States and on the development of procedures which may be applied by States and communities to reduce the size of the problem.

FLUORIDATION

An additional 165 communities with a total population of over 4½ million began fluoridating their public water supplies as a means of reducing tooth decay. This advance brought the national total to 1,522 communities providing fluoridated water to 31,664,474 people. Also, a natural fluoride census showed an additional 1,900 places, serving about 7 million, had at least one source of water with 0.7 ppm. or more fluoride.

A highlight of the year was the finding that the compound fluor-spar could be used in the fluoridation of public water supplies. The

new method will provide people with fluoridated water at less than one-third the present cost. Studies of topical fluoride agents as caries preventives were continued.

OTHER SERVICES

Two pilot studies were initiated to investigate dental problems of long-term illness patients and develop ways of extending dental care services to them. Montefiore Hospital and the Beth Abraham Nursing Home in New York City provided sites to study the technical aspects, while administrative and community organizational problems are being studied in the Kansas City area.

A study in two cities was made to determine the dental health status of children five years after termination of care, in which their dental needs were met on an incremental basis. Analysis of the data should indicate the extent of lasting benefits to a community which adopts such a school dental program.

Two other long-range studies involving children were the changing level of dental care required to meet the needs of those residing in a community adding fluorides to its water supply; and the extent of the dental care problem in a group using an optimum fluoride concentration water supply for the past 10–12 years.

Consultation occurred with dental directors and representatives of Federal and State public assistance programs to stimulate action whereby dental care may be given to public assistance recipients under recent legislation.

Division of International Health

The Division of International Health provides program and policy guidance on international health activities.

During the year, the Division developed health policies affecting U. S. participation in the World Health Organization, the Pan American Sanitary Organization, and the South Pacific Commission. These policies included the issuance and acceptance of a U. S. Government invitation to the World Health Organization to celebrate in Minneapolis, Minnesota, the Tenth Anniversary of the founding of the Organization. The anniversary meetings will be held on May 26 and 27, 1958, and will be followed by sessions of the World Health Assembly through June 14, 1958.

Preparatory action began on U. S. and USSR agreements to exchange reciprocal missions in public health administration during the later half of 1957. Public health institutions in each country will be visited by both exchange groups.

Under the international epidemiology program of the Division, studies were completed on health conditions and facilities in Cambodia, Laos, South Vietnam, North Vietnam, and Afghanistan, making a total of seven studies made since the program began in 1956.

Between 40 and 50 countries annually request assistance of the United States Government in the field of health, requiring consultative assistance from about 500 American health technicians. Since long-term projects are now well established in many countries, the tendency was to request Division assistance to evaluate program accomplishments as guideposts for future expansion. This was especially true of countries which are expanding limited demonstrations into nationwide control programs—such as India's malaria control program and the tuberculosis control program of the Philippines.

This Division is responsible for arranging programs for foreign health and medical personnel selected for training in the United States to fit them for specific positions of responsibility in their own national health services. Training programs were planned for 438 such persons from 44 countries. Also, the Division arranged technical visits for 127 trainees from 62 countries at Public Health Service field stations and health and medical facilities in the Washington area. At the request of the Philippine Government, the Division developed a new type of training program, wherein groups of health and medical workers were trained as a team to work together in the Philippine health department. The team approach was also used in the field of medical education when deans from six Philippine medical schools came to observe together medical education methods in the United States.

Table 1.—Statement of appropriations, authorizations, obligations, and balances, fiscal year 1957

[In thousands]

| Appropriations | Funds available for obligation | | | | Total funds available | Amounts obligated | Balances |
|--|-----------------------------------|--------------------------------------|-------------------------|---------------------------------|-----------------------|-------------------|-----------|
| | Appropriations and authorizations | Net transfers between appropriations | Repayments for services | Prior year unobligated balances | | | |
| Total..... | \$534,234 | —\$4,045 | \$20,932 | \$122,644 | \$682,516 | \$548,566 | \$133,950 |
| Appropriations, PHS.... | 534,165 | —4,045 | 20,932 | 122,518 | 673,570 | 541,099 | 132,471 |
| Control of tuberculosis..... | 6,660 | ----- | ----- | ----- | 6,660 | 6,575 | 85 |
| Control of venereal diseases..... | 4,195 | ----- | ----- | ----- | 4,195 | 4,153 | 42 |
| Assistance to States, general..... | 17,591 | ----- | 172 | ----- | 17,763 | 17,599 | 164 |
| Control of communicable diseases..... | 5,750 | ----- | 353 | ----- | 6,103 | 6,094 | 9 |
| Disease and sanitation investigations and control, Alaska..... | 1,170 | ----- | 22 | ----- | 1,192 | 1,189 | 3 |
| Sanitary engineering activities..... | 9,000 | ----- | 701 | ----- | 9,701 | 9,502 | 199 |
| Foreign quarantine service..... | 3,315 | ----- | 32 | ----- | 3,347 | 3,335 | 12 |
| Hospitals and medical care..... | 40,195 | ----- | 3,429 | ----- | 43,624 | 43,162 | 462 |

See footnotes at end of table.

Table 1.—Statement of appropriations, authorizations, obligations, and balances, fiscal year 1957—Continued

| Appropriations | Funds available for obligation | | | | Total funds available | Amounts obligated | Balances |
|---|-----------------------------------|--------------------------------------|-------------------------|---------------------------------|-----------------------|-------------------|---------------------|
| | Appropriations and authorizations | Net transfers between appropriations | Repayments for services | Prior year unobligated balances | | | |
| Salaries and expenses, hospital construction services..... | \$1,381 | | | | \$1,381 | \$1,337 | \$44 |
| Indian health activities..... | 38,775 | | \$555 | ² —\$678 | 38,652 | 38,411 | 241 |
| Construction of Indian health facilities..... | 8,762 | | | 3,641 | 12,403 | 877 | ³ 11,526 |
| Grants for hospital construction (1957-58)..... | 125,000 | | | | 125,000 | 38,899 | ⁴ 86,101 |
| Grants for hospital construction (1956-57)..... | | | | 76,551 | 76,551 | 76,253 | 298 |
| Grants for hospital construction (1955-57)..... | | | | 2,067 | 2,067 | 2,062 | 5 |
| Grants for hospital construction (1948-55)..... | | ⁵ —\$1,064 | | 1,064 | | —100 | 100 |
| Surveys and planning for hospital construction..... | | | | 1,558 | 1,558 | 384 | ³ 1,174 |
| Patients' benefit fund, Public Health Service hospitals..... | 24 | | | 20 | 44 | 24 | ³ 20 |
| Operating expenses, National Institutes of Health..... | 12,122 | | 15,321 | | 27,443 | 27,322 | 121 |
| Salaries, expenses, and grants, National Cancer Institute..... | 48,432 | | | | 48,432 | 42,556 | 5,876 |
| Mental health activities..... | 35,197 | | 43 | | 35,240 | 30,317 | 4,923 |
| Salaries, expenses, and grants, National Heart Institute..... | 33,396 | | | | 33,396 | 32,392 | 1,004 |
| Dental health activities..... | 6,026 | | | | 6,026 | 5,949 | 77 |
| Buildings and facilities, Cincinnati, Ohio..... | | | | 105 | 105 | 74 | ³ 31 |
| Arthritis and metabolic disease activities..... | 15,885 | | 237 | | 16,122 | 16,087 | 35 |
| Microbiology activities..... | 13,299 | | 49 | | 13,348 | 13,320 | 28 |
| Neurology and blindness activities..... | 18,650 | | | | 18,650 | 17,361 | 1,289 |
| Gorgas Memorial Laboratory..... | 147 | | | | 147 | 147 | |
| Operations, National Library of Medicine..... | | 1,004 | | | 1,004 | 988 | 16 |
| Construction of library facilities..... | 350 | | | | 350 | 332 | ³ 18 |
| Grants for waste treatment works construction..... | 50,000 | | | | 50,000 | 37,621 | ³ 12,379 |
| Grants to States for poliomyelitis vaccination..... | | ⁵ —4,000 | | 33,396 | 29,396 | 28,850 | 546 |
| Construction of Biologics Standards Laboratory Building..... | | | | 3,500 | 3,500 | 157 | ³ 3,343 |
| Construction of surgical facilities..... | 1,630 | | | | 1,630 | 74 | ³ 1,556 |
| Construction of Dental Research Building..... | 200 | | | | 200 | 71 | ³ 129 |
| Grants for construction of health research facilities..... | 30,000 | | | | 30,000 | 30,000 | |
| Construction of animal quarters..... | 1,371 | | | | 1,371 | 1,183 | ³ 188 |
| General office building..... | 300 | | | | 300 | 171 | ³ 129 |
| Construction of research facilities..... | | | | 1,288 | 1,288 | 1,087 | ³ 201 |
| Retired pay of commissioned officers (annual)..... | 1,450 | | | | 1,450 | 1,384 | 6 |
| Retired pay of commissioned officers (no year)..... | | —6 | | 6 | | | |
| Salaries and expenses..... | 3,892 | 21 | 18 | | 3,931 | 3,900 | 31 |
| Appropriations, special project funds made available by other agencies..... | | | | | 8,751 | 7,415 | 1,336 |
| Salaries and expenses, Bureau of Prisons (transfer to HEW, PHS)..... | | | | | 1,563 | 1,561 | 2 |
| American Sections, International Commissions, State (transfer to HEW, PHS)..... | | | | | 76 | 75 | 1 |
| Refugee Relief, Executive (transfer to HEW, PHS)..... | | | | | 315 | 306 | 9 |

See footnotes at end of table.

Table 1.—Statement of appropriations, authorizations, obligations, and balances, fiscal year 1957—Continued

| Appropriations | Funds available for obligation | | | | Total funds available | Amounts obligated | Balances |
|---|-----------------------------------|--------------------------------------|-------------------------|---------------------------------|-----------------------|-------------------|--------------------|
| | Appropriations and authorizations | Net transfers between appropriations | Repayments for services | Prior year unobligated balances | | | |
| Operations, Federal Civil Defense Administration (transfer to HEW, PHS)..... | | | | | \$ 187 | \$186 | \$1 |
| Operating expenses, Atomic Energy Commission (transfer to HEW, PHS)..... | | | | | 15 | 14 | ³ 1 |
| Plant acquisition and construction, Atomic Energy Commission (transfer to HEW, PHS)..... | | | | | 12 | 4 | ³ 8 |
| Research and development, Navy (transfer to HEW, PHS)..... | | | | | 20 | 12 | ³ 8 |
| Research and development, Army (transfer to HEW, PHS)..... | | | | | 6 | 5 | ³ 1 |
| Army, industrial fund (transfer to HEW, PHS)..... | | | | | 13 | 13 | ----- |
| Farm labor supply revolving fund, Bureau of Employment Security (transfer to HEW, PHS)..... | | | | | 481 | 347 | ³ 134 |
| Technical Assistance to American Republics and Non-Self-Governing Territories of the Western Hemisphere, Executive (transfer to HEW)..... | | | | | -1 | -1 | ----- |
| Technical Assistance, U. S. Dollars Advanced from Foreign Governments, I. C. A. (transfer to HEW)..... | | | | | 1 | ----- | ³ 1 |
| Administrative expenses, Section 411, Mutual Security Act, Executive (transfer to HEW)..... | | | | | 83 | 81 | 2 |
| Technical cooperation, general executive (transfer to HEW) (no year)..... | | | | | 1,504 | 910 | ³ 594 |
| Technical cooperation, general executive (transfer to HEW) (annual)..... | | | | | 2,647 | 2,226 | 421 |
| Defense support, Asia, Executive (transfer to HEW)..... | | | | | 267 | 163 | 104 |
| Educational exchange fund payments by Finland, World War I debt, Department of State (transfer to HEW)..... | | | | | 2 | 2 | ----- |
| Government and relief in occupied areas, Army (transfer to HEW)..... | | | | | 8 | 8 | ----- |
| Salaries and expenses, civil defense functions of Federal agencies, Federal Civil Defense Administration (transfer to HEW)..... | | | | | 1,552 | 1,503 | 49 |
| Gift funds donated for general and specific purposes..... | \$68.6 | ----- | ----- | \$126.0 | 194.6 | 51.9 | ³ 142.7 |
| Public Health Service unconditional gift fund..... | 17.6 | ----- | ----- | 89.0 | 106.6 | 1.3 | ³ 105.3 |
| Public Health Service conditional gift fund..... | 51.0 | ----- | ----- | 37.0 | 88.0 | 50.6 | ³ 37.4 |

¹ \$1 available for obligation in subsequent years.² Liquidation of contract authorizations obligated in 1956 fiscal year.³ Available for obligation in subsequent years.⁴ \$86,083 available for obligation in subsequent years.⁵ Rescinded.

Table 2.—Commissioned officers and civil service personnel as of June 30, 1937

| | Full-time | | | | Part-time (civilian) | | | | |
|---|-----------------------|-----------------------|----------|------------------------------|----------------------|-----------------|------------------------|----------------------|-------|
| | Grand total full-time | Commissioned officers | Civilian | | | Total part-time | When actually employed | Without compensation | Other |
| | | | Total | Washington metropolitan area | States |  |  |  |  | Outside United States |
| Public Health Service..... | 23,354 | 13,356 | 19,998 | 7,970 | 10,671 | 3,387 | 2,635 | 2,429 | 323 |
| Office of the Surgeon General..... | 587 | 68 | 519 | 489 | 30 | 11 | 3 | 3 | 5 |
| Immediate Office of the Surgeon General..... | 25 | 7 | 18 | 18 | | | | | |
| Division of Finance..... | 120 | | 120 | 120 | | | | | |
| Division of Administrative Services..... | 125 | 7 | 118 | 63 | 25 | 1 | | 2 | 1 |
| Division of Personnel..... | 164 | 25 | 139 | 139 | | 5 | | | 3 |
| Division of Public Health Methods..... | 81 | 2 | 79 | 75 | 4 | 3 | 1 | 1 | 1 |
| Offices other than divisions (Health Emergency Planning, Information, Executive)..... | 52 | 7 | 45 | 44 | 1 | | | | |
| Details to other agencies..... | 20 | 20 | | | | | | | |
| Bureau of Medical Services..... | 12,627 | 1,507 | 11,120 | 1,264 | 8,572 | 610 | 365 | 37 | 208 |
| Office of the Chief..... | 21 | 3 | 18 | 18 | | | | | |
| Division of Administrative Management..... | 106 | 2 | 104 | 104 | | | | | |
| Division of Dental Resources..... | 32 | 8 | 24 | 24 | | 21 | 21 | | |
| Division of Foreign Quarantine..... | 536 | 46 | 490 | 21 | 404 | 35 | 14 | 11 | 10 |
| Division of Hospital and Medical Facilities..... | 90 | 12 | 78 | 78 | | 1 | | | |
| Division of Hospitals..... | 6,058 | 924 | 5,134 | 151 | 4,964 | 298 | 194 | 14 | 90 |
| Freedmen's Hospital..... | 777 | | 777 | 777 | | 65 | 38 | 27 | 27 |
| Division of Indian Health..... | 4,630 | 307 | 4,323 | 55 | 3,069 | 184 | 94 | 12 | 78 |
| Division of Nursing Resources..... | 45 | 13 | 32 | 24 | 8 | 3 | 3 | | |
| Details to other agencies..... | 332 | 192 | 140 | 12 | 127 | 3 | | | 3 |
| Bureau of State Services..... | 3,666 | 1,008 | 2,598 | 851 | 1,687 | 2,515 | 115 | 2,371 | 29 |
| Office of the Chief..... | 104 | 6 | 98 | 97 | 1 | | | | |
| Communicable Disease Center..... | 1,109 | 271 | 838 | 2 | 832 | 14 | 2 | 11 | 1 |
| Division of Dental Public Health..... | 45 | 17 | 28 | 28 | | 76 | 32 | 42 | 2 |
| Division of General Health Services..... | 386 | 50 | 336 | 269 | 15 | 2,334 | 27 | 2,300 | 5 |
| Division of International Health..... | 76 | 11 | 65 | 65 | | 2 | | 1 | 1 |
| Division of Sanitary Engineering Services..... | 673 | 229 | 444 | 136 | 308 | 45 | 30 | 4 | 11 |
| Division of Special Health Services..... | 490 | 118 | 372 | 248 | 120 | 37 | 24 | 8 | 5 |

See footnotes at end of table.

Table 2.—*Commissioned officers and civil service personnel as of June 30, 1957—Continued*

| | Full-time | | | | Part-time (civilian) | | | |
|--|-----------------------|-----------------------|----------|------------------------------|----------------------|------------------------|----------------------|-------|
| | Grand total full-time | Commissioned officers | Civilian | | Total part-time | When actually employed | Without compensation | Other |
| | | | Total | Washington metropolitan area | States | Outside United States | | |
| Regional Offices..... | 597 | 180 | 417 | 6 | 411 | | | |
| Details to other agencies..... | 186 | 186 | | | | | | |
| National Institutes of Health..... | 6,269 | 713 | 5,556 | 5,170 | 373 | 13 | 241 | 145 |
| Office of the Director..... | 41 | 6 | 35 | 35 | | | 4 | 2 |
| National Cancer Institute..... | 923 | 147 | 776 | 642 | 134 | | 22 | 9 |
| National Heart Institute..... | 428 | 98 | 330 | 279 | 51 | | 26 | 10 |
| National Institute of Allergy and Infectious Diseases..... | 465 | 74 | 391 | 241 | 150 | | 5 | 3 |
| National Institute of Arthritis and Metabolic Diseases..... | 391 | 76 | 315 | 315 | | | 24 | 19 |
| National Institute of Dental Research..... | 118 | 36 | 82 | 82 | | | 14 | 12 |
| National Institute of Mental Health..... | 454 | 73 | 381 | 345 | 36 | | 30 | 17 |
| National Institute of Neurological Diseases and Blindness..... | 217 | 29 | 188 | 175 | | 13 | 20 | 17 |
| Clinical Center..... | 1,445 | 120 | 1,325 | 1,325 | | | 60 | 34 |
| Division of Biologics Standards..... | 1,174 | 20 | 1,154 | 1,153 | 1 | | 2 | 1 |
| Division of Business Operations..... | 627 | 1 | 626 | 626 | | | 3 | 1 |
| Division of Research Grants..... | 208 | 10 | 198 | 198 | | | 28 | 19 |
| Division of Research Services..... | 774 | 19 | 755 | 754 | 1 | | 3 | 1 |
| Details to other agencies..... | 4 | 4 | | | | | | |
| National Library of Medicine..... | 205 | | 205 | 196 | 9 | | 10 | 7 |
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¹ Includes 1,422 Regular Corps officers, 1,759 Active Reserve officers, and 175 Commissioned Reserve officers on temporary training duty.

² Excludes those part-time employees not in pay status during the month of June 1957.

⁴ Includes 2,292 collaborating epidemiologists and special agents.

Table 3.—Research grants and awards, fiscal year 1957

| Program | Research grants | | Research fellowships | | | | Training grants | | Traineeships | | Other grants | | Total | | |
|--|-----------------|--------------|----------------------|-------------|-----------|-----------|-----------------|--------------|--------------|-------------|--------------|--------------|------------|---------------|------------|
| | Num-ber | Amount | Full-time | | Part-time | | Num-ber | Amount | Num-ber | Amount | Num-ber | Amount | Num-ber | Amount | |
| | | | Num-ber | Amount | Num-ber | Amount | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| Total..... | 6,242 | \$82,517,308 | 1,186 | \$4,786,006 | 974 | \$627,600 | 1,211 | \$27,629,179 | 415 | \$1,841,707 | 223 | \$31,972,113 | 10,251 | \$149,373,913 | |
| Allergy and infectious diseases..... | 774 | 8,114,811 | 32 | 116,756 | | | | | | | | | 806 | 8,231,567 | |
| Arthritis and metabolic diseases..... | 772 | 8,221,928 | 71 | 299,695 | | | 136 | 1,627,322 | 53 | 222,310 | | | 1,032 | 10,371,255 | |
| Cancer..... | 1,165 | 18,790,481 | 285 | 918,594 | 128 | 81,216 | 177 | 3,911,070 | 188 | 729,530 | | | 1,943 | 24,430,891 | |
| Cancer field investigations..... | | | | | | | | | | | | 114 | 1,972,208 | 114 | 1,972,208 |
| Dental..... | 274 | 2,692,462 | 75 | 342,611 | 239 | 154,440 | 20 | 500,000 | | | | | 618 | 3,689,513 | |
| Heart..... | 1,390 | 18,343,770 | 319 | 1,318,577 | 14 | 9,504 | 185 | 4,026,114 | 98 | 393,382 | | | 2,006 | 24,091,347 | |
| Mental health..... | 484 | 7,405,815 | 175 | 650,038 | | | 444 | 12,064,964 | | | | | 1,103 | 20,120,817 | |
| Neurological diseases and blindness..... | 674 | 9,344,725 | 94 | 372,801 | 190 | 127,008 | 149 | 2,999,709 | 76 | 496,485 | | | 1,183 | 13,340,728 | |
| General (Division of Research Grants)..... | 653 | 7,992,083 | 135 | 766,934 | 403 | 255,432 | 8 | 500,000 | | | | | 1,199 | 9,514,449 | |
| Construction of research facilities..... | | | | | | | | | | | | 109 | 29,999,905 | 109 | 29,999,905 |
| Air pollution..... | 24 | 516,999 | | | | | | | | | | | 24 | 516,999 | |
| Hospital facilities research..... | 32 | 1,094,234 | | | | | | | | | | | 32 | 1,094,234 | |
| Graduate nurse training..... | | | | | | | | 92 | 2,000,000 | | | | 92 | 2,000,000 | |

¹ Includes 24 grants totaling \$528,911 in the field of nursing research.

Table 4.—*Payments to States, fiscal year 1957*
[In thousands]

| State | Venereal disease special projects | Tuberculosis control | General health | Mental health | Cancer control | Heart disease control | Water pollution control | Poliomyelitis vaccination assistance | Medical facilities survey and planning | Hospital and medical facilities construction | Waste treatment works construction | Community facilities construction |
|----------------------|-----------------------------------|----------------------|----------------|---------------|----------------|-----------------------|-------------------------|--------------------------------------|--|--|------------------------------------|-----------------------------------|
| Total 1 | \$2,670 | \$4,486 | \$11,962 | \$3,950 | \$2,235 | \$1,988 | 3 \$1,683 | \$28,850 | \$384 | \$71,504 | \$844 | \$302 |
| Alabama | 38 | 108 | 330 | 83 | 52 | 54 | 39 | 916 | 1 | 3,467 | | |
| Arizona | 22 | 56 | 237 | 25 | 16 | 4 | 18 | 224 | | 699 | 60 | |
| Arkansas | 44 | 82 | 227 | 16 | 36 | 31 | 30 | 641 | 2 | 958 | | |
| California | 18 | 274 | 670 | 264 | 142 | 112 | 77 | 1,459 | 22 | 3,155 | | 30 |
| Colorado | 6 | 36 | 123 | 35 | 24 | 25 | 21 | 139 | 11 | 904 | | |
| Connecticut | 7 | 46 | 109 | 21 | 26 | 24 | 32 | 94 | 7 | 1,185 | | |
| Delaware | 4 | 16 | 20 | 4 | 4 | 12 | 22 | 47 | 1 | 31 | | |
| District of Columbia | 43 | 40 | 41 | 26 | 10 | 16 | 22 | 79 | | 198 | | |
| Florida | 138 | 81 | 255 | 80 | 47 | 47 | 35 | 433 | 13 | 1,647 | | |
| Georgia | 140 | 110 | 346 | 96 | 56 | 62 | 37 | 879 | | 2,986 | | |
| Idaho | 5 | 16 | 72 | 26 | 13 | 17 | 16 | 152 | 5 | 689 | | 124 |
| Illinois | 69 | 233 | 497 | 201 | 116 | 86 | 41 | 830 | 26 | 1,298 | 65 | |
| Indiana | | 87 | 265 | 32 | 51 | 51 | 42 | 810 | 16 | 823 | | 3 |
| Iowa | | 42 | 156 | 64 | 32 | 26 | 18 | 791 | 18 | 823 | 4 | |
| Kansas | 7 | 36 | 151 | 46 | 27 | 31 | 25 | 189 | 5 | 1,631 | | 111 |
| Kentucky | 69 | 130 | 292 | 80 | 49 | 38 | 37 | 740 | 4 | 1,111 | 43 | |
| Louisiana | 60 | 90 | 267 | 75 | 44 | 44 | 36 | 701 | | 2,265 | 96 | |
| Maine | | 26 | 86 | 22 | 12 | 9 | 20 | 182 | | 690 | | 34 |
| Maryland | 13 | 89 | 157 | 59 | 32 | 34 | 34 | 498 | 1 | 998 | 136 | |
| Massachusetts | | 117 | 294 | 112 | 68 | 55 | 52 | 267 | 18 | 898 | | |
| Michigan | 61 | 140 | 401 | 130 | 82 | 72 | 57 | 793 | 45 | 3,615 | 24 | |
| Minnesota | | 50 | 235 | 74 | 33 | 28 | 34 | 184 | 15 | 2,477 | | |
| Mississippi | 57 | 80 | 296 | 65 | 45 | 53 | 35 | 1,065 | | 1,746 | | |
| Missouri | 55 | 114 | 284 | 97 | 52 | 52 | 39 | 1,001 | 16 | 2,808 | 92 | |
| Montana | 2 | 30 | 66 | 26 | 13 | 16 | 10 | 122 | | 276 | | |
| Nebraska | 5 | 23 | 112 | 31 | 23 | 20 | | 196 | 1 | 996 | | |
| Nevada | 2 | 13 | 37 | 26 | 2 | 9 | 8 | 34 | 2 | 292 | | |
| New Hampshire | | 9 | 47 | 26 | | 9 | 19 | 44 | | 347 | | |
| New Jersey | 43 | 126 | 281 | 118 | 66 | 52 | 50 | 299 | 16 | 691 | | |
| New Mexico | 26 | 33 | 92 | 26 | 15 | 19 | 18 | 206 | 14 | 744 | 18 | |
| New York | 121 | 402 | 852 | 353 | 205 | 138 | 107 | 976 | 27 | 3,345 | | |
| North Carolina | 125 | 104 | 416 | 93 | 93 | 51 | 50 | 1,569 | 12 | 3,684 | | |
| North Dakota | | 24 | 84 | 26 | 15 | 18 | 17 | 53 | 3 | 755 | | |
| Ohio | | 508 | 508 | 198 | 105 | 82 | 63 | 1,408 | | 1,107 | | |
| Oklahoma | 16 | 61 | 195 | 55 | 35 | 35 | 23 | 617 | 2 | 2,008 | 54 | |

| | | | | | | | | | | |
|---------------------------|-----|-----|-----|-----|-----|-----|-------|-----|-------|-----|
| Oregon..... | 35 | 128 | 37 | 19 | 16 | 22 | 402 | 3 | 805 | 36 |
| Pennsylvania..... | 278 | 683 | 256 | 141 | 115 | 85 | 2,207 | 25 | 1,500 | --- |
| Rhode Island..... | 25 | 53 | 26 | 11 | 16 | 27 | 39 | --- | 823 | --- |
| South Carolina..... | 73 | 247 | 63 | 37 | 46 | 34 | 551 | 10 | 1,665 | 15 |
| South Dakota..... | 13 | 81 | 22 | 15 | 5 | 17 | 73 | 2 | 762 | --- |
| Tennessee..... | 121 | 331 | 90 | 47 | 59 | 42 | 816 | 1 | 1,743 | --- |
| Texas..... | 211 | 642 | 207 | 109 | 104 | 38 | 2,599 | 7 | 3,731 | --- |
| Utah..... | 18 | 85 | 26 | 15 | 18 | 10 | 74 | 1 | 400 | --- |
| Vermont..... | 17 | 42 | 26 | 8 | 14 | 17 | 62 | --- | 251 | --- |
| Virginia..... | 110 | 287 | 89 | 48 | 8 | 39 | 404 | --- | 2,217 | --- |
| Washington..... | 3 | 163 | 58 | 33 | 33 | 27 | 487 | 25 | 173 | 137 |
| West Virginia..... | 6 | 181 | 52 | 31 | 26 | 30 | 584 | 4 | 1,566 | --- |
| Wisconsin..... | 56 | 243 | 86 | 49 | 30 | 41 | 180 | 4-2 | 1,367 | 64 |
| Wyoming..... | 11 | 45 | 20 | 8 | 8 | 14 | 74 | --- | 224 | --- |
| Alaska ¹ | 39 | 54 | 26 | --- | 12 | 13 | 116 | 3 | 172 | --- |
| Hawaii..... | 27 | 41 | 26 | 7 | 15 | 19 | 122 | 1 | 402 | --- |
| Puerto Rico..... | 234 | 294 | 66 | 40 | 31 | 31 | 1,297 | --- | 2,294 | --- |
| Virgin Islands..... | 2 | 5 | 20 | --- | --- | 5 | 9 | --- | --- | --- |
| Canal Zone..... | --- | --- | --- | --- | --- | --- | 17 | --- | --- | --- |
| Guam..... | --- | --- | --- | --- | --- | --- | 23 | --- | --- | --- |
| American Samoa..... | --- | --- | --- | --- | --- | --- | 16 | --- | --- | --- |

¹ Additional amounts of \$891 were paid under Title I, P. L. 911, for the public health traineeship program and of \$160 under P. L. 159 for training and demonstration projects in air pollution control.

² Includes \$470 in services and supplies furnished in lieu of cash.

³ Excludes \$181 paid to Water Pollution Interstate Agencies; Interstate Commission on the Delaware River Basin, \$31; Interstate Commission on the Potomac River

Basin, \$18; Interstate Sanitation Commission, \$47; New England Interstate Water Pollution Control Commission, \$15; Ohio River Valley Water Sanitation Commission, \$70.

⁴ Represents a partial refund by State of payment made in fiscal year 1955.

⁵ An additional payment of \$338 was made to Alaska for disease and sanitation investigation and control activities.

Office of Education

Introduction

FISCAL YEAR 1957 was one of healthy growth and activity in American education. Men and women in every phase of life—cultural, social, economic, and industrial—recognized the need for more education. Many demands were made on school officials at all levels. For example, progress in medicine, in dentistry, in industrial arts means changes in educational programs preparing doctors, dentists, and industrial artists. Population growth and mobility, changing occupational patterns, and technological advances mean changes in educational patterns as well as increased facilities. As the spotlight focused on the schools, educators went to work to solve their problems.

A few facts will indicate the size of these problems.

Schools and colleges in the United States enrolled 41,366,000 students in the 1956-57 school year, an all time peak and an increase of 1,567,300 over enrollment in 1955-56 (see table 1). Public and non-public elementary schools—kindergarten through grade 8—enrolled 29,711,000 children, an increase of 1,196,800; secondary schools—grades 9 through 12—enrolled 7,820,000, an increase of 72,900; colleges and universities, 3,244,000, an increase of 248,000. In all other types of schools—private commercial, day and evening, nurse training schools not affiliated with colleges and universities—enrollment increased from 541,400 to 591,000.

In the fall of 1956, 94 percent of all children in the 5- to 13-year-old age group were in school, and 88.2 percent of those in the 14- to 17-year-old group as compared to 80.1 percent 10 years ago.

Of the total enrollment, 5,133,000 pupils were in private elementary and secondary schools, an increase of 5 percent over the preceding

year. In recent years enrollment in private schools has increased more rapidly than in public schools.

The classroom shortage in public elementary and secondary schools, which had been accumulating over a period of years, continued in 1957.

In the school year 1956-57 public elementary and secondary school enrollment exceeded normal capacity by about 2.3 million children. Of this number about 840,000 pupils were on half-day schedules, and the others were in overcrowded classrooms or in makeshift facilities not designed for school work. The number in excess of normal capacity represents the number of pupils that cannot be accommodated without double sessions in the instruction rooms of the publicly owned school plant in use, according to State standards of normal capacity.

Pupils were housed in 1,087,000 instructional rooms, which was 49,000 or 4.7 percent more than the number available in 1955-56. State departments of education reported that in 1956-57 an additional 159,000 instruction rooms were needed in the continental United States, 80,000 of them to accommodate the 2.3 million pupils in excess of normal capacity and 79,000 to replace those in unsatisfactory conditions. A total of 69,200 instruction rooms in public schools were scheduled for completion during the year.

The shortage of qualified elementary and secondary teachers in public and nonpublic schools was a little less severe than it was a year ago—120,700 as compared to 141,300 in 1955-56 (see table 2). Of the total 1.2 million teachers in the public school system in the fall of 1956, 89,400 or 1 in every 13 were emergency teachers—that is they did not meet the State's standards for the lowest teaching certificate. State departments reported that full-time teachers holding emergency certificates constituted 7.5 percent of the total teaching staff in public elementary and secondary schools as compared with 6.8 percent the year before. The increase in the proportion of emergency teachers was caused in part by the adoption of higher certification requirements in some States.

Turnover among teachers was high—about 7.5 percent of the qualified teachers. Turnover, as used here, included those who died and those who left the classroom because of death, retirement, marriage, or to work in another field. It does not include teachers who moved from one teaching job to another.

The Office estimates that when public and nonpublic schools open in the fall of 1957, there will be a shortage of 135,000 qualified elementary and high school teachers—55,000 teachers will be needed to meet the enrollment increase; 12,600 to make up the difference between the 94,000 leaving the profession and the 81,400 new teachers who completed their college training in 1956-57; and 67,400 to replace the

emergency teachers employed last year (22,000 of last year's 89,400 emergency teachers will have become qualified before school opens). In 1956-57 the shortage of qualified teachers was met by the employment of emergency teachers and further overcrowding of classrooms.

The National Education Association reports that in 1956-57 more than half of all teachers were women in elementary grades, and 40.1 percent of all teachers were in rural districts; that in general the level of preparation was higher in urban districts than in rural, in secondary schools than in elementary, and among men than women. Only a few teachers were paid less than \$2,000 a year or more than \$7,000; the average was \$4,220.

The cost of education was high. For education in public elementary and secondary schools, including capital outlay, the country spent about \$12 billion. Expenditures per pupil in average daily attendance averaged \$400 for the school year 1956-57. Office of Education reports indicate that about 56 percent of public school funds were provided from local property taxes; 40 percent from State taxes on incomes, sales, and other forms of business activity; and the other 4 percent from the Federal Government.

The growth of education in the States and local communities led to increasing demands for leadership and to increasing requests for service and information from the Office of Education—information on such subjects as curriculum organization, efficient operation and administration, and on methods of expanding educational opportunities at all levels and to persons of varying degrees of ability. With a 65 percent increase in funds and under recently enacted legislation, the Office of Education was able to expand its professional staff and services and to initiate new programs in cooperative research. These services and programs as well as the new programs of grants for library service in rural areas and the extension of vocational education are discussed in more detail in the following pages.

LEGISLATION

Although the number of congressional enactments affecting education was small, the number and variety of bills introduced and considered during the year reflected national interest in education. Bills introduced included proposals for general scholarships and fellowships, veterans' educational benefits, graduate and undergraduate traineeships in specialized fields, assistance for State studies of education beyond the high school, general aid for school construction, aid for federally affected areas, vocational training in the fishing industry, and programs in the fine arts.

A number of proposals for general Federal aid to the States for school construction were made. During the 84th and 85th Con-

gresses the Administration's legislative program included recommendations for the enactment of such legislation. A general school construction aid bill failed to pass the House of Representatives on July 15, 1956. The President, in his State of the Union Message on January 10, 1957, and in a special message to the Congress on the status of education, January 28, 1957, again requested the enactment of such legislation. A general school construction aid bill again was reported to the House in 1957 and debated, but failed to pass.

Among the measures enacted by the Congress during fiscal year 1957, ten in the second session of the 84th Congress are of direct interest to education. They are briefly summarized below.

Public Law 752, approved July 20, 1956, amends the Agricultural Act of 1949, as amended, by further extending the Special School Milk Program to nonprofit nursery schools, child-care centers, settlement houses, summer camps, and similar nonprofit institutions devoted to the care and training of children, whether or not such institutions are caring for underprivileged children on a "public welfare or charitable basis."

Public Law 813, approved July 26, 1956, authorizes appropriations for allotments to the States to assist them in providing for a committee for education beyond the high school and authorizes appropriations for the expenses of the President's Committee on Education Beyond the High School.

Public Law 880 (Social Security Amendments of 1956), approved August 1, 1956, amends the Social Security Act in three ways which concern education. Title II, Section 218 (a) (6), is amended so that employees of State and local governments who desire to come under Old-Age and Survivors Insurance (OASI) may be considered as a separate group for purposes of coverage—at the option of the State and provided that all new employees do come under OASI. The amendment affects Florida, Georgia, New York, North Dakota, Pennsylvania, Tennessee, Wisconsin, and the Territory of Hawaii.

Title II, Section 218 (d) (6), is further amended to permit affected States (Nevada, New Mexico, Oklahoma, Pennsylvania, Texas, Washington, and the Territory of Hawaii) to cover under OASI nonprofessional school employees who are under a teachers' retirement system, and permits them to do so without a referendum and without covering the professional employees who are in a system. Title III, Section 406 (a), is amended by removing the requirement that, in order to receive aid, a needy child between the ages of 16 and 18 be in attendance in a school.

Public Law 881 (Servicemen's and Veterans' Survivor Benefits Act), approved August 1, 1956, provides, among other things, for a continuing—until age 21—dependence and indemnity compensation

for an orphan child who reaches age 18 and is pursuing a course of instruction in an approved educational institution. The bill also provides that, when there is a widow with a child who has attained age 18, when social security survivor benefits are terminated, the child shall be provided with a supplemental veterans administration benefit of \$35 per month while pursuing a course of instruction in an approved educational institution.

Public Law 896, approved August 1, 1956, extends to the Territory of Guam benefits provided under other Federal statutes, including assistance to vocational education, to schools in federally affected areas, and for library services.

Public Law 911, approved August 2, 1956, amends the Vocational Education Act of 1946 to authorize grants not to exceed \$5 million for the fiscal year ending June 30, 1957, and for each of the next 4 fiscal years to States with State plans for extending and improving practical nurse training.

Public Law 922, approved August 2, 1956, amends the act to promote the education of the blind (Act of March 3, 1879, as amended), so as to authorize wider distribution of instructional materials and to increase the amount authorized to be appropriated for this purpose from \$250,000 to \$400,000.

Public Law 949, approved August 3, 1956, extends until June 30, 1958, the programs under Public Laws 815 and 874 of the 81st Congress, as amended, which provide for Federal financial assistance in constructing and operating schools in areas affected by Federal activities; and makes certain technical changes in the provisions of these laws.

Public Law 1020, approved August 7, 1956, amends and extends the National Housing Act, increasing the amount of college housing loans authorized to be outstanding at any one time, from \$500 million to \$750 million.

Public Law 1027, approved August 8, 1956, amends the Vocational Education Act by authorizing the appropriation of \$375,000 for vocational education in the fishery trades and industry, and distributive occupations therein, to be administered by the United States Commissioner of Education in consultation with the Secretary of the Interior. The Secretary of the Interior is authorized to make grants to public and nonprofit private universities and colleges to promote the education and training of professionally trained persons needed in commercial fishing, and an appropriation not to exceed \$550,000 for each fiscal year is authorized for this purpose.

During the year the Office of Education continued to develop its services in the collection and interchange of information in the field of school law. A principal objective is to develop and maintain a

clearinghouse of information on the status of, and trends in, school law developments in the States and to service the requests of State and local school officials and organized groups on such developments. Two basic reports on the provisions of State school law governing special education of exceptional children and early elementary education were compiled and published. General information on State and Federal educational legislation was also collected and made available to the public.

Organization and Administration of Education

STATE SCHOOL ADMINISTRATION

Through the development and distribution of information on various aspects of State school administration and through consultive services to State departments of education, legislative committees, special committees, and other agencies, the Office of Education continued to assist States in their efforts to achieve more effective programs of State school administration.

During the year, the Office published as a handbook the results of the financial accounting study completed in fiscal 1956. Entitled, *Financial Accounting for Local and State School Systems*, the handbook was officially approved by leading national educational associations who cooperated in its development as the basic guide for financial accounting for local and State school systems throughout the country. By the end of the fiscal year a number of States had already started to incorporate the handbook's recommendations into their accounting systems. This handbook is the second in a basic educational records and reports series aimed at laying the groundwork for comparable educational information among States and communities. With such groundwork established, it will be possible to have available adequate and reliable educational information for local, State, and national spheres of activity.

The year saw the substantial beginning of a project on property accounting for local and State school systems. Aimed at standardizing the meanings of basic items of information and terminology relating to school lands, buildings, and equipment, the project is being conducted in cooperation with the American Association of School Administrators, the Association of School Business Officials of the United States and Canada, the Council of Chief State School Officers, the National Council on Schoolhouse Construction, and the National School Boards Association. Hundreds of representatives of the cooperating associations from all parts of the country will participate, through national and regional conferences, in the production of the third handbook in the series. In this way, the handbook will reflect the needs and wishes of a broad representative sample of its prospec-

tive users with respect to the kinds and the meanings of basic information about school property that should be available.

LOCAL SCHOOL ADMINISTRATION

Efforts to secure more soundly organized local school districts continued with marked success in some States but with many others either attempting to launch new districting programs or to improve the effectiveness of those already in operation. To assist the States with this widespread problem, the Office of Education completed a study dealing with the conditions which facilitate and those which hinder progress. To help local communities engaged in redistricting activities, Office specialists developed a manual of planning procedures which is scheduled for publication in fiscal year 1958.

Another problem directly related to sound district organization is that of determining the nature and scope of services beyond regular classroom instruction and activities a school system can provide at reasonable cost. These are the administrative, supervisory, and other systemwide services needed to provide good conditions for teaching and learning in the classroom and for overall efficiency of the school system. In fiscal year 1957 a special Office project was initiated dealing with this problem.

During the year the Office cooperated with State and national organizations engaged in serving local boards of education and completed a study of State statutory provisions governing membership on local school boards.

SCHOOL FINANCE

The Office continued its services to States and local communities which have problems in supporting schools. Throughout the Nation there was continued difficulty in securing reasonably adequate tax revenues for schools. During the past year the financing problems were intensified by increases in enrollments, public demands for additional services, and rising costs which required greater expenditures. To aid the schools in solving such problems the Office published studies reporting and interpreting information on status, trends, and developments in school finance and school business management.

The Office also gave consideration to the requirements of State legislatures and State departments of education in developing improved plans for financing the schools. Among such new plans are those which propose (1) enactments of foundation programs for supporting schools, (2) allocations of State funds for public 2-year colleges, (3) authorizations of local nonproperty taxes as additional sources of school revenue, (4) appropriations of State funds to help

local school districts construct additional classrooms, and (5) the easing of restrictions on the creation of debt to permit local districts to borrow funds for the construction of new school buildings.

SCHOOLHOUSING

Since 1950 the schoolhousing program has become big business. During the first 7 years of the decade a total of \$13½ billion was spent to provide schoolhousing for an enrollment increase of 7½ million public elementary and secondary students, for rehousing those who moved to new localities, and for replacement of some old buildings. This total expenditure represented an average capital outlay investment of approximately \$36,000 per classroom with related facilities. The number of children born each year continued to increase; building deterioration, pupil mobility, and other factors helped create new housing demands. The recent nationwide school facilities survey gave impetus to the drive for adequate schoolhousing and provided the States with preliminary data for long-range school-plant programs.

In 1957 the Office of Education provided leadership and encouragement to help expand and improve State department of education services and guidance for local school-plant programs. Various State departments established new or expanded existing school-plant service units. Some States increased State financial assistance for local school-plant construction. Office specialists in school housing participated in numerous State or regional conferences or workshops organized to provide data on the development and maintenance of efficient and economical school-plant programs.

Providing adequate schoolhousing for modern educational programs requires careful functional planning and designing with specific attention to space and facility arrangements best adapted to the program to be offered. The schoolhousing specialists cooperated with various national organizations in developing planning criteria and assisted State department of education and local school officials through publications, conferences, and advice in developing techniques and procedures for studying program needs and for developing plant layouts best adapted to facilitate the educational program. They also assisted in establishing criteria and procedures for local cooperative planning.

Substantial progress was made in developing essential criteria to be used in manufacturing and selecting the school furniture and equipment needed in carrying out effective educational programs. Data on pupil body measurements were being used extensively as guides for architectural and other designers of buildings and particularly for designers of school furniture and equipment. The present

trend in planning school buildings is to develop school facility arrangements, furniture, and equipment which are adapted to the ages and sizes of pupils using them and to the learning activities of the pupils. Such features as working heights and spacing, the needs of left-handed pupils, and the dimensional spacing and heights desirable for certain types of physically handicapped children are all considered. Designers and manufacturers are making extensive use of such data, and during the year they requested the advice and services of the Office in applying them to new design problems.

The completed school plant must be maintained ready for use. The Office provided guidance to the States and local districts in developing maintenance, modernization, rehabilitation, and custodial improvement programs. A 1956 school-plant insurance study stimulated several State, many local district, and some college graduate student studies on school building insurance. Many State and city school officials established custodial training programs along lines suggested by the Office to improve school custodial services.

Schoolhousing specialists serve in a liaison capacity between the field of building and equipment technology and school officials. The Office is constantly engaged in various studies in cooperation with technological organizations having a bearing on school-plant construction and efficiency. One study under way is to establish new standards for school lighting to replace those developed in 1948; and another to establish a standard pattern for measuring of floor areas in school buildings. These measurements are to serve as bases for computing and comparing school building space allotments and unit costs.

Services to Local Schools

ELEMENTARY EDUCATION

In recent years the States have intensified their efforts to provide adequately for the education of young children in the public schools. They have expanded services, widened age ranges, increased their requirements for teacher certification, and made an effort to extend educational opportunity to all groups at varying levels of ability. Greater activity at the State and local level has led to greater need for Office of Education information and services. The activities described below will give an indication of the type of services the Office rendered to elementary education in 1957.

During the year specialists in elementary education completed a number of studies: 1) On improved methods of reporting to parents on pupils' progress; 2) on teacher recruitment and retention, showing what State groups have done in the recruitment and selection of teachers and what some schools have done to promote teacher profes-

sional development; 3) on conservation practices in elementary schools; and 4) on the status of physical education in elementary schools in the United States.

The Office continued its efforts to improve educational opportunities for children of migrant agricultural workers. Through representation on the Working Group of the President's Committee on Migratory Labor, the Office cooperated with other agencies and Departments in studying the relation of education to the problems of transportation, housing, and health—problems which the Committee dealt with during the year. The Office initiated a study to make a census of migrant children attending school; it will be completed in 1958. The Office also organized and participated in two regional conferences on the education of migrant children, one in Kalamazoo, Mich., for the North Central States, the other in Santa Fe, N. Mex., for the Southwest States. Throughout the year staff specialists consulted with private and public agencies working on migrant education projects, such as the planning of summer schools for migrant children, teacher education workshops for teachers of migrant children, and preparation of printed materials on the education of migrant children.

Significant proposals for elementary education resulted from two conferences held in the Office of Education. About 60 persons from 50 large cities attended a conference for supervisors of elementary education in large cities. One proposal was that children and parents be invited to participate along with professional educators in developing good programs of instruction and that schools should help children become selective in what they learn through greater emphasis on critical and creative thinking and problem solving.

A second conference was concerned with the role of special teachers of art, music, and physical education in the elementary school. Specialists in these fields and in general elementary education attended.

SECONDARY EDUCATION

In general, the school year 1956-57 reflected increased emphasis by educators and citizens on improving the quality of curriculum content and instruction in secondary schools and at the same time on devising methods of school organization and teaching appropriate to the individual differences of adolescent youth.

Specialists for mathematics and science continued to devote attention to the completion of basic studies of the quantitative and qualitative status of mathematics and science instruction. A pilot study of the qualifications and teaching loads of mathematics and science teachers was conducted in three States. The study pattern developed was adopted by other States working to improve their programs.

The 1954 study of mathematics and science offerings and enrollments was repeated, and analytical comparisons were made. Results show continued increase in the availability of courses in high school and increase in enrollments.

Staff specialists, in cooperation with those of other Government agencies, reviewed studies of the growing national need for foreign language competence in Government, business, industry, and education. A conference attended by school administrators, supervisors, teachers, and teacher-educators was held which identified problems and the need for modernizing and extending foreign language instruction to more pupils for longer sequences of time.

A study of research findings, administrative and organization patterns, and instructional materials for developmental and remedial reading programs in junior high schools was completed. Another study was released which analyzed the various types of cooperative school-community work experience education programs in secondary schools. Suggestions useful to school administrators in initiating and conducting such programs were made.

ADULT EDUCATION

During the year the Office of Education, through one of its staff members, worked with the Adult Education Association in establishing the National Commission on Literacy. The Commission will help develop a national awareness of the problem of adult illiteracy and the importance and urgency of solving the problem. It will also give leadership in attacking the problem.

With the National Education Association the Office developed a cooperative program making the consideration of adult education a part of American Education Week. Heretofore, emphasis during this annual national observance has been on the education of children and youth. From now on educational leaders plan to emphasize lifelong learning as one of the major areas of American education as a means of making adult education an integral part of the regular educational programs.

Another phase of the Office of Education's effort to promote national concern for adult education was the development of an adult education exhibit for the use of teachers, lay leaders of community groups, and others interested in adult education.

Underlying all the Office's plans and activities in adult education are its regular and basic studies in the various areas of adult education. During the year, work was begun on the collection and interpretation of adult education statistics; on studies of activities in State departments of education and local school systems relating to adult education; and on education for the aging.

For the first time questions on the extent to which people participate in adult education activities will be asked in the current population survey of the Bureau of the Census. This survey, planned for October, will cover a sample of 35,000 households in 330 subdivisions of the country and will yield a national estimate of the number of adults who have pursued some educational activity during the past year. Office specialists in adult education, in cooperation with the adult Education Association and the Fund for Adult Education, made the arrangements with the Census and obtained the cooperation of several voluntary agencies in planning the questions and the preliminary instructions for Census enumerators. It is hoped that the experience from the inclusion of these questions in the October Population Survey will be sufficiently satisfactory to warrant the inclusion of similar questions in the 1960 Census.

EXCEPTIONAL CHILDREN

Children whose physical, mental, or emotional qualities differ significantly from the average or normal are called exceptional children. Public interest in the education of exceptional children in the United States continued to mount in 1957. It was focused primarily on children with mental retardation, speech and hearing impairment, and blindness. This interest was evident at Federal, State, and local levels.

In recent years there have been many developments in the education of the mentally retarded. One of national significance is the program of cooperative research in this field which was launched by the Office of Education during the year (See Cooperative research). For the first year in a new program, the variety and coverage of areas for study was extensive. Research projects initiated included studies on trainable and educable children, age groups ranging from preschool to adolescence, day-school and residential-school programs, and urban and rural population.

National interest in developing and improving standards for supervisors and teachers to work with the various types of exceptional children also continued. One of the deterrents to the development of educational programs for handicapped or gifted children has been the shortage of specially prepared and trained teachers for them. For a number of years the Office has given leadership to a nationwide study on this problem, and during fiscal 1957 completed three of the study reports: one on the preparation of teachers of mentally retarded, one on teachers of socially maladjusted children, and the third on speech correctionists.

Plans for the education of blind children in this country seem to be changing somewhat. On the basis of preliminary figures collected by the American Printing House for the Blind, an increased

number of blind children were being educated in day schools in 1957. The ratio of enrollments in residential schools to day schools was about 6 to 4. Together with this shift in philosophy and practice, some changes were made in the Federal act to promote the education of the blind (Public Law 922, 84th Cong., 2d sess.).

AUDIOVISUAL EDUCATION

The Office continued to provide services relating to the audiovisual materials of the Federal Government, including cataloging new films for Library of Congress catalog cards, administering the Government's contract covering the sale of films, and preparing a supplement to the 1955 catalog, "United States Government Films for Public Educational Use." Work was started on the compilation of a catalog of Government maps available for educational use.

As part of its program to strengthen State and local educational resources, the Office prepared directories of audiovisual employees in the Federal Government, State departments of education, and large city school systems; and made a study of audiovisual education in State departments of education. This study showed that the States, while differing in individual practices, were providing a number of services affecting the classroom use of audiovisual instructional materials—through curriculum development, school accreditation, teacher certification, publications, and workshops as well as through the production and distribution of audiovisual materials.

RADIO-TELEVISION SERVICES

The nationwide development of radio and television in education was indicated by the increase in the number of program offerings on commercial and noncommercial stations cooperating with educational institutions, in the large number of courses for credit offered over television, and in the number of stations. Program offerings over noncommercial TV stations increased to a general average of 56 hours a week, and commercial stations made sharp increases in institutional cultural programs. The number of courses for credit increased, particularly where experimental use on a noncredit basis justified the offering. The number of educational radio stations increased from 176 in 1956 to 193 in 1957, and educational television stations from 26 in 1956 to 29 on the air in 1957 and 11 in the construction or planning stages.

Closed-circuit television in schools and on college campuses also showed the results of successful experimentation over the past year. Large cities, such as Los Angeles, Atlanta, Chicago, and New York, maintained closed-circuit as well as open-circuit broadcasting. Smaller cities like Evanston, Ill., Hagerstown, Md., Wichita, Kans.,

and San Jose, Calif., carried on teaching experiments demonstrating the educational possibilities of television.

During the year the Office cooperated with educational institutions and with the Department of Defense, Department of State, the Treasury Department, Department of Commerce, the United States Information Agency, the National Science Foundation, and other Government agencies in planning and producing programs. Staff specialists advised on educational projects in many parts of the United States, under various State auspices, the Commonwealth of Puerto Rico, and a number of foreign countries just starting television.

GUIDANCE AND STUDENT PERSONNEL

During the year the Office prepared and distributed pamphlets, circulars, and leaflets on various occupations for the use of school guidance and student personnel workers. Major publications dealt with such areas as certification requirements for guidance workers including school psychologists, summer and academic year offerings at colleges and universities in the preparation of guidance and student personnel workers, and retention in high schools in large cities. Staff members continued research in evaluation of guidance and student personnel services, characteristics of students and educational programs in schools having low student dropout rates, guidance practices in 260 local schools, and guidance procedures for the selection of students in vocational education.

The Office also carried on a number of activities in cooperation with other agencies and groups, both private and governmental. In one of these—the Stay-in-School Campaign—the Office cooperated with the Departments of Labor and Defense in preparing and distributing press and radio releases and a handbook for the use of communities in urging high school youth to stay in school. A study on the transition from school to work prepared to aid schools, civic clubs, PTA's, and employers in assisting youth as they move from education to employment was the outgrowth of discussions with a subcommittee of the Inter-Departmental Committee on Children and Youth. A study of the retention of students in high schools grew out of a 6-year planning and research program involving 22 large city school systems. A study of careers in atomic energy was made, with technical assistance from the Atomic Energy Commission.

Staff specialists also cooperated with other governmental and professional groups concerned with guidance and personnel.

Vocational Education

One of the functions of the Office of Education is to administer the grant-in-aid funds for vocational education of less than college grade made available under provisions of the Smith-Hughes and

George-Barden and supplementary acts and to assist States in the promotion and improvement of such education.

To carry out the provisions of these acts the Congress appropriated slightly more than \$38 million in matching funds for allotment by the Office to the States in 1957, an increase of about \$5 million over the 1956 total. In 1956 State and local expenditures for vocational education amounted to \$142,705,208. That year more than 65 percent of the high schools in the country offered training in one or more of the vocational programs—agriculture, distributive occupations, home economics, trade and industry, practical nurse education—and approximately 3,500,000 youths and adults were enrolled.

The Federal grant included \$2 million for the extension and improvement of practical nurse training, under legislation enacted by the 84th Congress (Public Law 911), amending the George-Barden Act.

The action of the Congress in providing special funds for practical nurse training stimulated the States to extend such training. By the close of the year 47 States and Territories were participating in the program. The Office assisted the States through intraregional conferences in working out program plans for the growth and development of practical nurse training. Five such conferences were conducted during the year by three professional nurse-educators who had joined the staff to assist with the program.

Policies for the administration of the practical nurse training program under the provisions of Public Law 911 covering the most important points were developed and distributed to the States early in the year. By the end of the fiscal year a full statement of policies for the administration of the program for training practical nurses had been completed.

The 84th Congress also enacted legislation (Public Law 896) entitling Guam to participate in the vocational education program. Other legislation (Public Law 1027) was designed to promote vocational education in the fishery trades and industry and distributive occupations therein. No funds were appropriated for the fiscal year 1957 under either of these acts.

The changing economic and social conditions affecting farming, industry, distribution, and family living emphasize the importance of continual appraisal of vocational programs and adjustments to them to meet the needs of workers, as well as the demand for workers. States report that training is needed for many new industries and for old industries employing new production methods. New and higher skills are needed by workers to meet the job requirements of the present and the future. To help the States improve their program, the Office conducted 17 regional conferences for State personnel in vocational education. Special emphasis was given to

adapting instruction to changing conditions, keeping abreast of technical improvements, meeting the need for preservice and in-service training of teachers and supervisors, providing new areas of training, and developing leadership in vocational education, adult education, and action research.

In carrying out studies and plans for improving the program in specific areas, the Office brought together groups of persons with experience in successful programs or with experience in the areas under consideration. Representative of these were:

(1) A conference on various phases of the practical nurse training program in which 20 persons participated to advise the staff on significant steps in the preparation of plans for programs of practical nursing; to develop criteria for evaluating progress; and to identify studies needed.

(2) A group of 17 home economists who reexamined the program of home economics for adults, considered the development and improvement of these programs, and assisted in preparing basic content materials for a much needed bulletin in this field.

(3) A conference on implications for trade and industrial education of technological change in industry, in which vocational educators from 16 States participated. Special contributions were made by representatives from industry, Government, and other groups concerned with the training of technicians.

To assist the States in developing various phases of the program for which there was an expressed need, the Office rendered service in the following ways: 1) Conducted a second national conference for the development of leadership in trade and industrial education for new and potential State supervisors, with 59 industrial educators from 38 States participating.

2) Organized and conducted, in cooperation with representatives of the textile industry, a series of textile fiber clinics to bring to State and local leaders in distributive education information on recent developments and on sources of teaching materials.

3) Held the first regional conference on farm mechanics for teachers of vocational agriculture, with 11 States participating, to develop functional programs in farm mechanics instruction in keeping with modern mechanized agriculture.

4) Conducted workshops on farm mechanics in a number of States for State staffs in agricultural education.

5) Cosponsored, with a university which offers teacher training in home economics, the first of a series of workshops on improvement in home economics teaching—emphasizing social, economic, and scientific developments as they affect home and family life.

Several projects were undertaken during the year. They included a preliminary investigation into the study and research needed in

vocational education in secondary schools; a study of the importance of business education as a field of training and as a potential source of workers; the development of curriculum materials for quantity food preparation in hotels and restaurants; and management training needs of small business establishments and the contribution that distributive education in secondary schools can make to such training.

The Office reviewed programs in the several States and assisted the States in appraising their administrative practices and at the same time program specialists assisted the States in further developing their programs.

Office specialists participated in teacher-training workshops and in meetings of State supervisory and teacher-training staffs on the improvement of instruction; assisted in State-conducted studies of vocational education; served on committees concerned with curriculum improvement; worked with State staffs and teacher-training institutions on research projects; helped in the preparation of resource materials for use in universities and local school systems; and participated in many of the annual State conventions of vocational educators.

The revision of the *Statement of Policies for the Administration of Vocational Education* (Bulletin No. 1), begun in fiscal year 1956, neared completion by the close of the fiscal year. In this task there has been wide participation by State directors of vocational education, with the final work to be done by a special committee composed of chief State school officers and State directors, working with members of the staff of the Office of Education and the Office of the General Counsel.

Higher Education

The following projects are representative of Office research and consultive services to higher education during fiscal year 1957.

COST OF GOING TO COLLEGE

During the year, the Office completed a study (reported in Bulletin 1957, No. 9, 91 p.) of what a year in college costs undergraduate students and the major source of student budgets. Based on the experience of 15,325 students in 110 colleges in 41 States during the school year 1956-57, the study reports that the estimated cost of attending undergraduate college per school year averaged \$1,500 for publicly controlled colleges and \$2,000 for private and related institutions.

These costs were double those undergraduate students paid in 1940. The family of the average student provided from its current income 41 percent of the student's budget; he earned 26 percent of it; received 20 percent from trust funds and other forms of long-time

family savings; and received the remaining 13 percent from scholarships, loan funds, veterans' benefits, and miscellaneous resources.

STATEWIDE PLANNING AND COORDINATION OF HIGHER EDUCATION

The Office published a roundup on what each of the 48 States is doing in the field of statewide planning and coordination of higher education. The Office provided consultive services on the topic to State executive and legislative councils and to boards of regents in 8 States: Colorado, Florida, Louisiana, Michigan, New Mexico, Nevada, Tennessee, and Wisconsin. Staff specialists also contributed to improved State planning and coordination in higher education through work with the President's Committee on Education Beyond the High School, and through service to the Southern, Western, and New England regional compacts of States for developing higher education.

COLLEGE STUDENT RETENTION AND WITHDRAWAL

During the year, the Office completed a 4-year study of the extent and causes of the retention and withdrawal of college students. It was based on the experience of 13,700 students who first enrolled in college in the fall of 1950. The students attended 147 representative institutions in 46 States and the District of Columbia. The study shows that 40 percent of the freshmen who entered college in 1950 remained to graduate 4 years later and that an additional 20 percent were ultimately graduated. The holding power of colleges indicated by these figures represents a significant improvement over those shown by a study done in 1937.

Among freshmen general dissatisfaction with the instructional and counseling program ranked highest among causes for withdrawal. Academic failure ranked second. For sophomores, juniors, and seniors, personal financial problems ranked highest. The greatest number of dropouts were in the freshman year.

COLLEGE AND UNIVERSITY FACILITIES SURVEY

Preliminary reports from a college and university facilities survey now underway indicate that during the last 5 years the country has spent \$2 billion for new buildings and expects to spend \$4 billion for this purpose during the next 5 years. Approximately 62 percent of new construction in the last 5 years was for publicly supported institutions and 38 percent for private colleges and universities.

Publicly controlled institutions got 56 percent of their construction funds from local, State, and Federal taxes; 31 percent from bond issues; and 13 percent from other sources. During the same period, privately supported institutions got 56 percent of their construction funds from gifts, 20 percent from bond issues and other borrowings,

10 percent from current institutional funds, 8 percent from endowment, 4.5 percent from governmental appropriations, and 1.5 percent from other sources.

SURVEY OF ORGANIZED OCCUPATIONAL CURRICULUMS

The Office of Education, in cooperation with the American Society for Engineering Education, has published detailed statistics on engineering enrollments and degrees since 1949. In 1957, following a request from the President's Committee on Scientists and Engineers, the joint enterprise was extended to cover organized occupational curriculums (both engineering and nonengineering) of less than 4 years' duration in technical institutes, junior colleges, and other higher educational institutes.

Questionnaires covering curriculums of less than 4 years' duration for the academic year 1956-57 were sent to all recognized institutions of higher education. Returns from 95 percent of them show that 639 institutions enrolled 92,430 students in nonengineering curriculums, and 60,242 in engineering-related curriculums; and graduated 23,441 students from nonengineering curriculums and 10,737 from engineering-related curriculums. Publication of complete data early in fiscal year 1958 will make available for the first time information on the extent and type of training at the technician and semiprofessional level.

COLLEGE STAFFING STUDY

There were 301,582 faculty members in American colleges and universities in the fall of 1955. According to Office of Education estimates, college student enrollments will increase from 3,244,000 in 1956-57 to 6,676,000 by 1970-71. Thus, about double the number of present college teachers will be required if the present teacher-student ratio is to be maintained. The already difficult staffing problems are expected to become more serious.

In consideration of these facts the Office, in May 1957, sponsored a conference of representative leaders in higher education to advise on (1) how colleges and universities are now meeting the teacher shortage, and (2) the ability of the American graduate school to prepare a sufficient number of suitably qualified college faculty members to meet the demand. Initial steps were taken in fiscal 1957 on an Office study of these problems.

INSTITUTIONAL FINANCIAL AID TO STUDENTS

Specialists in higher education completed a nationwide survey of institutional financial assistance—excluding student aid grants of the States, corporations and other business firms, labor unions, and other organizations—to undergraduate and graduate students. Although

1,560 colleges and universities reported some type of student aid, 190 others reported that they had no form of financial aid for their students. Preliminary data showed that in the school year 1955-56 institutional aid to undergraduates totaled \$141,985,153, of which 45.9 percent was for employment, 45.2 percent was for scholarships, and 8.9 percent was for loans. Institutional financial aid for graduate students totaled \$64,928,950, of which 54.0 percent was for assistantships, 28.3 percent for fellowships, 10.0 percent for employment, and 7.7 percent for loans.

As a byproduct of its student aid study, the Office completed two directories listing the institutional student aid resources separately for undergraduate and graduate students. These directories will be published early in fiscal year 1958. The Office plans to distribute copies of the directories to all secondary schools and to all institutions of higher education in the United States.

COLLEGE HOUSING PROGRAM

During fiscal 1957, the staff of the Office was requested by the Community Facilities Administration to review and report on the second largest number of loan applications for college housing since the inception of the program. These applications totaled 315, three-fourths of which were from private colleges and 67 percent from institutions with enrollments under 1,000 students. The total amount requested in 1957 by the 315 applicants was \$403,991,000, as contrasted with \$413,250,000 requested by 386 applicants in fiscal 1956.

Amendments to the Housing Act, enacted by the 85th Congress, 1st Session, will increase the college loan fund from \$750 million to \$925 million. The interest rate, now at 2.78 percent, will be about 3 percent for fiscal 1958.

ADMINISTRATION OF GRANTS

For the year ending June 30, 1956, the Office administered a total of \$5,051,500 to land-grant colleges and universities under the Morrill-Nelson and Bankhead-Jones Acts. Office responsibility in this program is to certify that each State and Territory is entitled to receive its share of the annual appropriation and the amount it is entitled to receive. The amounts allotted to the States, Territories, and the Commonwealth of Puerto Rico are shown in table 3.

International Education

Throughout 1957 the Office continued to shape its program to meet the growing interest in international education. As the public becomes increasingly aware of the importance of education to mutual

understanding of the cultures of the world and thus to world peace, there are increasing demands on the Office. In 1957 the Office received many requests for service from Federal, national, and international agencies and from American and foreign educators.

RESEARCH AND STUDIES

President Eisenhower, in a commencement address at Baylor University, Waco, Texas, in 1956, proposed that colleges and universities in the United States cooperate in the development of higher education in countries with inadequate educational facilities. Since that time several appraisals have been made of the status of American higher education abroad; among them was the Office study, *American Cooperation With Higher Education Abroad*, published in 1957. It is a summary of governmental and nongovernmental programs.

In addition to its regular studies of comparative and international education, the Office introduced two new series of publications in 1957: A series of yearbooks on education around the world, and a series of bibliographies. The first yearbook was released under the title *Education for Better Living: The Role of the School in Community Improvement*. It is a survey of what schools are doing in 16 nations and colonial areas to improve community living conditions. The first of the annual series of bibliographies, *Bibliography: 1956 Publications in Comparative and International Education*, was issued as an aid to American professors and leaders in comparative and international education in the United States and abroad.

In 1957 work was begun on three studies which will be published in 1958: (1) Educational developments in Japan since the war, based on a field study by a specialist in Far Eastern education, (2) the educational organizations, institutions, and programs in Brazil, based on a field study by a specialist in Latin American education, and (3) the functions and organizations of ministries of education, to be published as the second yearbook on education around the world. Officials of other United States Government agencies, particularly those with overseas posts, cooperated with Office specialists in planning the study of ministries of education and in securing data for it.

FAR EAST UNIT

A Far East unit was established in the Office in 1957 to handle the increasing workload relating to education in Asian countries. The unit was organized after staff specialists had conferred with representatives of the Government and educators outside the Office on the direction educational research on the Far East should take to serve the needs of the Government and the profession.

EVALUATION OF FOREIGN CREDENTIALS

The number of foreign nationals studying in the United States has risen steadily since World War II, to at least 40,000 in 1957. The increase in foreign students studying in the United States and of United States students studying abroad adds to the work of the staff members who evaluate foreign study for the use of educational institutions, State certification offices, boards of licensure, civil service commissions, and personnel offices in making decisions on the equivalence of specific foreign study to study in the United States.

In 1957, two trends were evident in requests for evaluation: A higher proportion of the requests were from governmental boards of licensure, probably reflecting a larger number of mature persons coming here with the intention of practicing a profession; and a larger number of requests were for information about the status of foreign universities from government agencies with responsibility for United States citizens studying in higher institutions overseas.

EDUCATIONAL CLEARINGHOUSE

The Office provided the Department of State with 183 statistical tabulations on government-sponsored grantees entering and leaving this country during the year, a service it has given annually since 1952. The statistical studies include such information as numbers and types of grantees by country of destination or origin, State of origin or destination, fields of specialization, age groupings, and veterans' status.

During the year, the Office prepared records giving the name, address, category, specialty, occupation, and institution of placement of every foreign grantee entering this country between 1952 and 1955.

INTERNATIONAL CONFERENCES

The Office coordinated the preparation of educational reports required for United States participation in international organizations. These reports dealt with decisions of governments on education and provided background data for technical groups at international conferences.

For example, a report on the training of primary (elementary) teacher training staffs was prepared for the Twentieth Annual International Conference on Public Education at Geneva; and in response to requests from UNESCO, materials were assembled on special education in the United States for the Belgian Ministry of Education and on vocational and technical education for the Netherlands Ministry of Education.

On the recommendation of the United States delegations to the International Conference on Public Education, sponsored by UNESCO and the International Bureau of Education, the Office of Education,

in cooperation with the United States Information Agency, prepared an exhibit for display in the Palais Wilson in Geneva from July 1957 to June 1958. The exhibit is on school construction, the major subject of the 1957 conference.

EDUCATIONAL MATERIALS LABORATORY

The Educational Materials Laboratory has been in operation since 1953 for the use of foreign visitors, United States educators, and other persons interested in improved educational materials. In 1957 the Laboratory had a collection of approximately 6,000 items including textbooks supplied by the American publishers and materials developed by United States education missions in foreign countries.

During 1957 the Laboratory served other government agencies: educators from other countries, most of whom were brought to the United States by the International Cooperation Administration and the International Educational Exchange Service of the Department of State; American educators going abroad under the technical assistance program of ICA or to administer American sponsored schools in other countries; and a number of ICA missions overseas. A majority of the ICA requests were for assistance in obtaining materials in American educational specialties and for technical advice on establishment of education materials centers in several missions.

Service to American schools continued to be a major part of the Laboratory's activities. In 1957, 1,166 individual requests were received from 47 States, 2 Territories, the District of Columbia, and Guam. Most of them were for assistance in planning courses and in locating materials from other countries. A series of "Teaching Aids for Developing International Understanding," which include annotated lists of teaching materials, was initiated for use by American teachers. Thirteen such lists were compiled.

TEACHER EXCHANGE PROGRAM

The continued exchange of American and foreign teachers results in an effective interpretation of educational systems and cultures to participating groups in the United States and abroad. To further this aim the Office cooperates with the IES, Department of State, in recruiting American teachers for overseas assignments and matching American and foreign teachers for interchange of positions. During the year 25 new teaching opportunities overseas were announced.

In 1957 the Office placed 502 American and foreign teachers, including 71 American teachers for summer seminars in France, Germany, and Italy; 104 Americans for teaching assignments abroad and 15 foreign teachers for similar assignments in the United States; and 156 American and 156 foreign teachers who exchanged positions.

TEACHER EDUCATION PROGRAM

The teacher education program in which foreign teachers are brought to the United States for a 6-month study of American education has reached into many American communities. The 303 teachers from 43 countries here under this program during the past year visited more than 6,000 schools and homes in 1,100 communities and met over a million people. They appeared on radio and television programs and were the subject of newspaper articles in at least 37 States. Study programs were arranged for them in 12 university training centers in elementary, secondary, and vocational education, English, and American civilization.

The following countries participated for the first time during the past year: Chile, Colombia, Ecuador, Fiji Islands, Honduras, Jordan, Laos, Malta, Turkey.

The second teacher development workshop was held at the University of Puerto Rico for 32 educators from countries of the Caribbean area. The 30-day program in elementary and secondary education was conducted in Spanish. This program is also carried on in cooperation with IES, Department of State.

TECHNICAL TRAINING PROGRAM

During the year the Office assisted the International Cooperation Administration by arranging training programs for 540 participants from newly developing countries. The participants received their academic training in 130 educational institutions in a wide variety of subjects such as elementary, secondary, and vocational education; engineering; and physics; and supplementary training in different types of commercial and industrial installations. As part of their training the participants visited unions, PTA's, civic groups, granges, and hundreds of other organizations.

TECHNICAL COOPERATION PROGRAM

The Office continued to work with the ICA in the development of technical cooperation programs in 37 newly developing countries. Eighty-seven specialists were selected for appointment by ICA to serve in educational programs of these countries where approximately 300 educators, exclusive of college contract employees, are helping to improve educational conditions.

The Office also furnished essential technical support on special educational problems of these educators in the countries where they work, participated in international conferences, and consulted with education officials of many other countries on professional matters of common concern.

NONPROGRAM VISITORS

The Office also serves large numbers of foreign visitors who are not participants in any one of the three programs for which funds have

been transferred to the Office. Some of these "nonprogram" visitors make appointments directly with staff members in all divisions of the Office. A number of visitors are referred by other Government agencies, educational organizations, and foreign embassies for assistance in educational matters. It is estimated that during the year 350 non-program foreign educators received educational services from the Office. These activities are a traditional service of the Office.

Research and Statistical Services

COOPERATIVE RESEARCH

In 1957 the Office launched the cooperative research program, which is authorized under Public Law 531, 83d Congress. The act authorizes the United States Commissioner of Education to "enter into contracts or jointly financed cooperative arrangements with universities and colleges and State educational agencies for the conduct of research, surveys, and demonstrations in the field of education." An appropriation of \$1,020,190 was made for the support of such research during fiscal year 1957.

Proposals under the program are received by the Office from institutions of higher education and State departments of education. All such proposals are submitted to the Research Advisory Committee for their review and recommendations. This Committee ordinarily meets three times each year, in October, January, and May.

The Committee evaluates the proposed projects on the basis of the following criteria: (1) Significance of the project for education throughout the Nation; (2) soundness of technical design of the study; (3) personnel and facilities available to carry out the project; and (4) economic efficiency (economy of the proposed procedures and expected value of findings in relation to Federal cost). Projects considered outstanding are recommended by the Committee to the Commissioner of Education. When projects are approved by the Commissioner, contracts are negotiated for their support. Although a substantial amount of the necessary financial support is provided by the Federal Government, the cooperating institution or agency also contributes to the total cost of the project.

By the end of fiscal year 1957 the Office had received 324 applications for the support of research proposals representing requests for Federal funds of more than \$15 million. Of these, the Research Advisory Committee had reviewed 316 proposals and had recommended 108 of the projects for final approval.

Since two-thirds of the total amount of Federal funds appropriated was designated for research in the education of mentally retarded children, more proposals were received dealing with this subject than with any other. At the end of the fiscal year a total of 72 projects had

been initiated and were receiving financial support under the Cooperative Research Program. These projects received current-year support of approximately \$1 million. Most of the projects will require an additional year or more for completion. Of the 72 projects initiated, 42 deal with the mentally retarded. Of the 30 projects in areas other than the mentally retarded, 10 deal with staffing the Nation's schools and colleges, 6 with the retention and continuation of students in school, 3 with the development of special abilities, 3 with educational aspects of juvenile delinquency, and 8 with other aspects of education. The projects are being carried on in 30 different institutions of higher education and in 6 State departments of education.

STATISTICAL SERVICES

During fiscal year 1957 the research and statistical staff was increased from 26 to 68 persons. As a result, the traditional basic statistical surveys of school systems and institutions have been strengthened, studies of new areas of educational statistics have been initiated, and a new section (the Reference, Estimates, and Projections Section) has been established. The new section will systematize and expand the program of educational estimates and projections in order to provide current data urgently needed for policy-making purposes. Study has already begun for projections of enrollment at elementary, secondary, and higher education levels; the number of high school graduates; and the number of degrees conferred by institutions of higher education.

During the year improvements were made in survey techniques, such as sampling procedures, coverage of surveys, forms design, methods of data collection, and analysis and interpretation of data. Improvements were also made in the collection of data through visits of staff members to State departments of education. Staff time in the field was shortened through the employment of local clerks or the preparation of photocopies of State records.

NEW SURVEYS

During the year work was begun on a number of new surveys which will be reported in fiscal 1958. The major studies are described briefly in the following paragraphs.

Survey of Beginning Teachers.—This study is focused primarily on the economic status of beginning teachers, their degree of satisfaction with various aspects of their job, and their commitment to teaching as a career. It is based on a scientifically selected sample in two stages—the first, a sample of school districts which were requested to submit lists of beginning teachers, and the second, a sample of these beginning teachers, to whom a detailed questionnaire was mailed.

Suburban City School Systems.—Because virtually all of the increase since 1950 in the civilian population of the United States has taken place in the 168 standard metropolitan areas it has become imperative that information about the large and increasing number of suburban school systems within these areas be collected and made available. Consequently the current biennial survey of city school systems was expanded in coverage and content.

The expanded survey will contain information on about 475 suburban cities, all located in standard metropolitan areas, including personnel and financial matters, the qualifications of their teachers, salary practices, specialized curriculum offerings, and class size.

County-Unit School Systems.—The county-unit school system, which is rapidly becoming a significant type of school organization, has not been systematically studied prior to the present survey. This survey of "complete" county units, that is, those counties which operate single school systems, represents an extension of the coverage of the *Biennial Survey of Education*.

Rural County School Systems.—This year the Office began to develop a program of rural school statistics designed to provide data similar to those published for city schools. A questionnaire identical with that which went to cities has been sent to about 1,200 counties which had been identified as having "rural" characteristics. Through the program the Office expects to provide valuable information for persons interested in improving the educational opportunities of rural children.

Highway Safety.—In cooperation with the National Commission on Safety Education of the National Education Association, the Office has requested all institutions of higher education to report the courses or activities they provide for training people in the field of highway safety. The results will be analyzed by specialists of the National Education Association and this Office, and will be published as a classified directory which should prove useful to students, counselors, employers, safety councils, and insurance groups.

Enrollment by Scientific Subject Field.—This survey was instituted in response to urgent requests from organizations and institutions concerned with the present and future supply of scientific manpower. A pretest was conducted in which 600 institutions of higher education were requested to report enrollments of junior-year students, by major field of science.

Other Surveys.—Two other fields of study which deserve mention, although they were in the drawing-board stage at year end, are a statistical study of adult education activities and a survey of teacher turnover, the primary purpose of which is to obtain a reliable estimate, on an annual basis, of the number of teachers leaving the profession.

Assistance to Schools in Federally Affected Areas

Fiscal year 1957 was the seventh year of continuous operation of the program for Federal assistance to schools in areas affected by Federal activity. Like the preceding years the seventh year showed a growth in the number of participating districts.

Federal payments to federally affected districts (P. L. 874, as amended) to aid in meeting current operating expenses for the year amounted to \$113 million. These payments were made on behalf of some 1,200,000 federally connected pupils claimed by school districts which had a total attendance of over 7.6 million pupils. The school districts receiving these funds provided free public education to approximately one-fifth of the Nation's public school enrollment. The number of participating districts in fiscal year 1957 amounted to approximately 3,400, an increase of about 500 in the number of eligible districts over the previous year. This increase in eligible districts was the largest since 1952, the second year of the program, when 600 new districts were found to be eligible.

From the beginning of the program in 1950 to the end of fiscal 1958, school construction projects approved numbered 3,705 for which Federal funds amounting to \$712 million had been allocated (Public Law 815, as amended). Local school districts which have received school construction aid under this program have added \$303 million in their own funds to these projects and in addition have provided sites and off-site improvements not included as a part of the approved project. The school construction work thus far initiated under this program is more than \$1 billion, and the classroom accommodations provided by the approved projects will be sufficient to house some 950,000 pupils.

One of the principal causes of the continued extension of the school construction program is the substantial program of military housing which has been authorized by the Congress under title VIII of the National Housing Act. This program, popularly known as the Capehart housing program, authorizes the Federal Government to issue mortgages sufficient to provide funds for some 150,000 family housing units on military installations. The program has been amended twice since its original enactment with the effect that the number of housing units to be approved under it has been enlarged and the date for final commitment of mortgages has been extended until June 30, 1959. Since the children who will live in these family housing units will need school facilities on or near the military installations, the Congress has provided for continued Federal assistance under Public Law 815 for school construction.

Since the amendments to the Capehart housing program extend the time for the approval and construction of the housing units, a 1-year extension of Public Law 815 to accommodate these new housing units, was recommended by the Department and adopted by the Congress. This extension will enable school districts to make claims for Federal assistance in school membership through fiscal year 1959.

In extending Public Law 815 for one additional year the Congress indicated its intention "to make a thorough study of the entire Federal impact problem in order to develop a program which will operate efficiently and economically without periodical extension and piecemeal changes"; and to this end directed the Department to present its recommendations early in the next session of the Congress.

Library Service

PUBLIC LIBRARIES

In 1871, the Commissioner of Education said in his Annual Report :

"Public libraries are at once an important means and a valuable index of education. . . . Year by year this office should be able to present the growth of this valuable auxiliary to all forms of culture."

In 1957 the Office revised and enlarged its regular program of activities in the public library field. A public library specialist was appointed to the staff, with the special responsibilities for planning and conducting research and other studies to meet the increasing demands for objective data and trends. Added to the work in this area has been the coordinating of library services with adult education and services to the aging at the national and State levels.

Further evidence of the growing awareness of the important role which public libraries play in the educational life of the Nation can be found in the enactment of the Library Services Act (Public Law 597, 84th Cong.) signed by the President on June 19, 1956. This legislation provides for a 5-year program of Federal assistance to the States and Territories in extending public library services to those rural areas which have either no libraries or inadequate libraries.

Regulations were drafted and reviewed at a series of four regional conferences with heads of State library administrative agencies charged with the responsibility of carrying out State plans for the improvement and extension of rural public library service.

Thirty-five States and Hawaii submitted plans and qualified for their Federal allotments of \$40,000 each under the \$2,050,000 appropriation for fiscal 1957. These States not only matched the Federal allotment of \$1,440,000, but overmatched it by \$2,941,259; although they were required to put up only \$1,282,861, they put up a total of \$4,224,120. The percentages of total funds budgeted in State plans

by categories of expenditures were: Salaries and wages, 40.6; books and materials, 36.8; equipment, 10.6; and all other operating, 12.

Under the impetus of the Library Services Act a number of States have enacted new legislation and increased their appropriations for public libraries to meet the requirements of the act. Other States appropriated emergency funds so that they could immediately qualify. One State created a new library extension agency and appropriated funds to match the Federal allotment. The reports in the periodicals issued by the State agencies speak enthusiastically of the helpful effect of the Library Services Act on the library programs in the respective States.

EDUCATION FOR LIBRARIANSHIP

To meet requests for information pertinent to the widespread shortage of trained librarians throughout the United States, the Office has endeavored to maintain for the past 5 years a current list of higher educational institutions which offer courses in library science. The number of such institutions has increased during this period from about 400 in 1951-52 to nearly 600 in 1956-57.

PUBLIC SCHOOL LIBRARIES

A comprehensive statistical survey of public school libraries for 1953-54, the first since 1947-48, was completed during the year. By appropriate adjustments for the use of sampling and for nonresponse, it was possible to derive figures for the Nation as a whole. The calculations showed that 128,831 schools were involved. The number of librarians employed in 1953-54 was 30,753, of whom 15,971 were professionally trained and 14,782 had little or no professional training. The number of volumes in the school libraries at the close of 1953-54 was 102,915,052, of which 9,609,949 were added during the year. The total annual library expenditure, excluding salaries, was \$25,222,207, of which \$16,066,277 was spent for books and pamphlets and \$2,199,352 for periodicals and newspapers.

Advisory Committees

In carrying out its activities the Office had the cooperation of advisory committees, professional associations and groups, State departments of education, and educators and laymen. Among the advisory committees working with the Office during the year were Office of Education Research Advisory Committee, the National Committee on the Study of the Qualification and Preparation of Teachers of Exceptional Children, the National Advisory Committee for the Exchange of Teachers, the Advisory Committee of National Organ-

izations, and the Advisory Committee on the Library Services Program.

The cooperation of these committees provides a vital link in the continuity which the Office seeks to maintain in citizen-educator teamwork.

To provide a direct means of communication with and between organizations and associations the Office launched a new publication, Education Fact Sheet, and put out seven issues during the year. The publication carries brief items on the activities of the Office, national organizations interested in education, and the States and communities.

The President's Committee on Education Beyond the High School

The First Interim Report of the President's Committee on Education Beyond the High School was submitted to the President on November 16, 1956. The report, which included the Committee's preliminary conclusions, was intended to promote discussion among as many educators and laymen as possible. About 25,000 copies of the report were distributed.

Following the submission of the First Interim Report, the Committee organized itself into subcommittees for the purpose of preparing the Second Report to the President. This report will contain recommendations on the need for teachers and for student assistance, the problems of financing and of providing a diversity of educational opportunity beyond high school, and the relationships of the Federal Government to education beyond the high school.

In addition to making its own studies, the Committee sponsored five regional conferences during April and May 1957. The conferences, held in Boston, New York, Louisville, Saint Louis, and San Francisco, were attended by 1,400 laymen and educators who considered problems of post-high-school education as they related to the region. The staff developed a source book of statistical information and salient facts on post-high-school education for the use of conference participants. Each of the conferences submitted a report of its proceedings to the President's Committee.

The second report will be submitted to the President in fiscal 1958, and copies will be distributed to 120,000 educators and laymen throughout the country.

Major Publications Off the Press in Fiscal Year 1957

Accredited Higher Institutions, 1956

Administration of Public Laws 874 and 815, 6th Annual Report of the Commissioner of Education, June 30, 1956

Adventuring in Research to Improve School Practices in Homemaking Programs

American Cooperation with Higher Education Abroad

Austrian Teachers and Their Education Since 1945

Directors and Supervisors of Special Education in Local School Systems

A Directory of 3,300 16mm Film Libraries

Education for Better Living, 1957 Yearbook on Education Around the World

Education Directory, 1956-57 (Parts 1, 2, 3, 4)

Education for National Survival, A Handbook for Schools

Education in Taiwan

Engineering Enrollments and Degrees, 1956

Extraclass Activities in Aviation, Photography, and Radio for Secondary School Pupils

Fall 1956 Enrollment, Teachers, and Schoolhousing in Full-Time Public Elementary and Secondary Schools

Federal Funds for Education, 1954-55 and 1955-56

Financial Accounting for Local and State School Systems

Home Economics in Colleges and Universities, Planning Space and Equipment

National Stay-in-School Campaign, Handbook for Communities

Opening Enrollment in Higher Educational Institutions, Fall 1956

Planning and Conducting a Program of Instruction in Vocational Agriculture for Young Farmers

Progress of Public Education in the United States of America, 1956-57

Pupil Transportation Responsibilities and Services of State Departments of Education

Research in Industrial Education, Summaries of Studies, 1930-55

Resident and Extension Enrollment in Institutions of Higher Education, Nov. 1955

School District Reorganization Policies and Procedures

School Property Insurance, Experiences at State Level

The Secondary School Plant, An Approach for Planning Functional Facilities

Statistics of City School Systems; Staff, Pupils, and Finances, 1953-54

Statistics of Higher Education: Faculty, Students, and Degrees, 1953-54

Statistics of Higher Education: Receipts, Expenditures, and Property, 1953-54

Statistics of Land-Grant Colleges and Universities, Year Ended June 30, 1955

Statistics of State School Systems: Organization, Staff, Pupils, and Finance, 1953-54

Summaries of Studies in Agricultural Education (Supplements 9 and 10)

Summary of Federal Funds for Education

Teachers of Children Who Are Blind

Teachers of Children Who Are Mentally Retarded

Teachers of Children Who Are Partially Seeing

Teaching about the United Nations in United States Educational Institutions

Trends in Significant Facts on School Finance, 1929-30 to 1953-54

Work Experience Education Programs in American Secondary Schools

Higher Education (9 issues, September through May)

School Life (9 issues, October through June)

Table 1.—Enrollment in the continental United States, 1955-56 and 1956-57

[Office of Education estimates]

| School | Year | |
|---|--------------|--------------|
| | 1955-56 | 1956-57 |
| Kindergarten through grade 8: | | |
| Public school systems, regular full-time..... | 24, 588, 000 | 25, 283, 000 |
| Nonpublic schools, regular full-time..... | 3, 768, 000 | 4, 267, 000 |
| Federal schools for Indians..... | 32, 200 | 26, 000 |
| Federal schools under Public Law 874..... | 16, 000 | 19, 000 |
| Other..... | 110, 000 | 116, 000 |
| Total kindergarten through grade 8..... | 28, 514, 200 | 29, 711, 000 |
| Grades 9-12: | | |
| Public school systems, regular full-time..... | 6, 860, 000 | 6, 876, 000 |
| Private and parochial schools, regular full-time..... | 823, 200 | 866, 000 |
| Federal schools for Indians..... | 9, 800 | 11, 000 |
| Federal schools under Public Law 874..... | 900 | 1, 000 |
| Other..... | 53, 200 | 66, 000 |
| Total grades 9-12..... | 7, 747, 100 | 7, 820, 000 |
| Total elementary and secondary..... | 36, 261, 300 | 37, 531, 000 |
| Higher education: | | |
| Universities, colleges, professional schools, including junior colleges and normal schools..... | 2, 996, 000 | 3, 244, 000 |
| | 2, 996, 000 | 3, 244, 000 |
| Other schools: | | |
| Private commercial schools, day and evening..... | 450, 000 | 500, 000 |
| Nurse training schools, not affiliated with colleges and universities..... | 91, 400 | 91, 000 |
| Total other schools..... | 541, 400 | 591, 000 |
| Grand total..... | 39, 798, 700 | 41, 366, 000 |

Table 2.—Supply and demand for elementary and secondary public and nonpublic school teachers, 1956-57

| Item | Elementary and secondary |
|--|--------------------------|
| <i>Supply</i> | |
| Total teachers, 1955-56 ¹ | 1, 266, 000 |
| Less emergency teachers, 1955-56..... | 77, 600 |
| Total qualified teachers, 1955-56..... | 1, 188, 400 |
| Less 7.5 percent turnover of qualified teachers..... | 89, 100 |
| Qualified teachers returning for 1956-57..... | 1, 099, 300 |
| Emergency teachers qualifying for 1956-57..... | 20, 000 |
| New supply of qualified teachers (81.6 percent of elementary and 62.9 percent of high school teachers trained in 1955-56)..... | 76, 100 |
| Total qualified supply, 1956-57..... | 1, 195, 400 |
| <i>Demand</i> | |
| Total teachers, 1955-56 ¹ | 1, 266, 000 |
| Teachers needed to meet increase in enrollment in 1956-57..... | 50, 100 |
| Total demand, 1956-57..... | 1, 316, 100 |
| Shortage of qualified supply..... | 120, 700 |

¹ The number of elementary and secondary school teachers in the public school system, in the fall of 1955, was 1,135,930 (Office of Education Circular No. 467, Revised). To this must be added the number in nonpublic schools (private and parochial), in model and practice schools, in colleges and universities, in residential schools for exceptional children, and in schools operated under Federal auspices. The number in Catholic private and parochial schools in 1955-56 was 114,000 (estimated by National Catholic Welfare Conference, Dept. of Education). The number in the other types of schools is estimated as 16,250.

Table 3.—Grants¹ to States: Office of Education, fiscal year 1957

| States, Territories, and possessions | Total | Colleges for agriculture and mechanic arts | Library services | Cooperative vocational education | Maintenance and operation of schools (Public Law 874) | School construction (Public Law 815) |
|--------------------------------------|------------------------|--|----------------------|----------------------------------|---|--------------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Total | \$204, 336, 577 | \$5, 051, 500 | \$1, 440, 000 | \$37, 582, 036 | ² \$93, 194, 675 | \$67, 068, 366 |
| Alabama..... | 4, 440, 916 | 100, 541 | 40, 000 | 1, 023, 505 | 2, 403, 290 | 873, 640 |
| Arizona..... | 2, 312, 158 | 77, 477 | 40, 000 | 197, 420 | 1, 343, 063 | 654, 198 |
| Arkansas..... | 2, 337, 833 | 89, 048 | 40, 000 | 759, 496 | 725, 618 | 723, 671 |
| California..... | 33, 748, 271 | 175, 599 | 40, 000 | 1, 873, 650 | 16, 107, 775 | 15, 651, 247 |
| Colorado..... | 4, 428, 815 | 83, 218 | 40, 000 | 324, 396 | 2, 380, 448 | 1, 600, 753 |
| Connecticut..... | 2, 175, 268 | 90, 023 | 40, 000 | 347, 696 | 1, 103, 323 | 594, 226 |
| Delaware..... | 407, 328 | 73, 173 | ----- | 170, 186 | 113, 919 | 50, 050 |
| District of Columbia..... | 79, 961 | ----- | ----- | 79, 961 | ----- | ----- |
| Florida..... | 5, 429, 497 | 97, 644 | ----- | 602, 112 | 2, 717, 369 | 2, 012, 372 |
| Georgia..... | 6, 118, 713 | 104, 360 | 40, 000 | 1, 123, 236 | 3, 091, 693 | 1, 759, 424 |
| Idaho..... | 867, 535 | 75, 872 | ----- | 210, 327 | 538, 165 | 43, 171 |
| Illinois..... | 4, 521, 467 | 156, 905 | 40, 000 | 1, 690, 318 | 1, 990, 787 | 643, 457 |
| Indiana..... | 1, 928, 961 | 169, 245 | ----- | 963, 073 | 661, 799 | 194, 844 |
| Iowa..... | 1, 315, 854 | 96, 146 | 40, 000 | 844, 810 | 276, 918 | 57, 980 |
| Kansas..... | 4, 198, 327 | 89, 006 | ----- | 574, 038 | 2, 871, 295 | 663, 988 |
| Kentucky..... | 2, 268, 184 | 99, 375 | 40, 000 | 1, 029, 962 | 766, 318 | 332, 529 |
| Louisiana..... | 1, 827, 217 | 96, 769 | 40, 000 | 724, 292 | 659, 970 | 306, 186 |
| Maine..... | 1, 107, 971 | 79, 115 | ----- | 202, 875 | 689, 238 | 136, 743 |
| Maryland..... | 9, 674, 701 | 93, 372 | ----- | 453, 365 | 4, 199, 910 | 4, 928, 054 |
| Massachusetts..... | 3, 049, 749 | 116, 789 | 40, 000 | 720, 724 | 1, 604, 452 | 567, 784 |
| Michigan..... | 7, 008, 278 | 133, 559 | 40, 000 | 1, 344, 240 | 399, 902 | 5, 090, 577 |
| Minnesota..... | 1, 594, 176 | 99, 751 | 40, 000 | 918, 835 | 83, 204 | 452, 386 |
| Mississippi..... | 1, 780, 390 | 91, 735 | 40, 000 | 967, 241 | 553, 065 | 128, 349 |
| Missouri..... | 3, 717, 508 | 109, 448 | 40, 000 | 1, 063, 406 | 1, 243, 468 | 1, 261, 186 |
| Montana..... | 1, 263, 528 | 75, 896 | 40, 000 | 210, 270 | 374, 668 | 562, 694 |
| Nebraska..... | 1, 970, 096 | 83, 222 | 40, 000 | 427, 369 | 866, 250 | 553, 255 |
| Nevada..... | 944, 319 | 71, 597 | ----- | 160, 628 | 585, 810 | 126, 284 |
| New Hampshire..... | 732, 599 | 75, 319 | 40, 000 | 149, 790 | 403, 871 | 63, 619 |
| New Jersey..... | 3, 215, 614 | 118, 233 | 40, 000 | 740, 906 | 1, 471, 328 | 843, 147 |
| New Mexico..... | 4, 552, 144 | 76, 795 | 40, 000 | 217, 207 | 1, 791, 937 | 2, 426, 205 |
| New York..... | 6, 526, 311 | 217, 934 | 40, 000 | 2, 405, 413 | 1, 954, 331 | 1, 908, 633 |
| North Carolina..... | 3, 053, 848 | 116, 518 | 40, 000 | 1, 441, 575 | 961, 914 | 499, 841 |
| North Dakota..... | 577, 236 | 76, 181 | 40, 000 | 280, 375 | 151, 013 | 29, 667 |
| Ohio..... | 6, 296, 978 | 149, 269 | 40, 000 | 1, 686, 442 | 2, 921, 747 | 1, 499, 520 |
| Oklahoma..... | 7, 391, 471 | 92, 279 | 40, 000 | 681, 177 | 3, 905, 274 | 2, 672, 741 |
| Oregon..... | 1, 733, 154 | 85, 176 | 40, 000 | 390, 110 | 681, 904 | 535, 964 |
| Pennsylvania..... | 3, 904, 622 | 174, 720 | ----- | 2, 059, 943 | 1, 245, 487 | 424, 472 |
| Rhode Island..... | 1, 475, 735 | 77, 899 | ----- | 136, 282 | 941, 121 | 323, 433 |
| South Carolina..... | 3, 152, 164 | 91, 118 | 40, 000 | 734, 059 | 1, 605, 891 | 681, 096 |
| South Dakota..... | 1, 821, 457 | 76, 511 | 40, 000 | 277, 504 | 951, 741 | 475, 701 |
| Tennessee..... | 3, 293, 230 | 102, 835 | 40, 000 | 1, 074, 226 | 1, 199, 033 | 877, 136 |
| Texas..... | 12, 348, 662 | 146, 921 | 40, 000 | 1, 878, 287 | 6, 565, 589 | 3, 717, 865 |
| Utah..... | 1, 973, 903 | 76, 871 | ----- | 181, 265 | 1, 020, 735 | 695, 032 |
| Vermont..... | 330, 302 | 73, 768 | 40, 000 | 167, 670 | 48, 864 | ----- |
| Virginia..... | 14, 284, 826 | 103, 104 | 40, 000 | 975, 568 | 7, 655, 804 | 5, 510, 410 |
| Washington..... | 6, 633, 305 | 93, 731 | ----- | 580, 427 | 3, 762, 991 | 2, 196, 156 |
| West Virginia..... | 938, 918 | 90, 006 | 40, 000 | 617, 951 | 144, 026 | 46, 935 |
| Wisconsin..... | 1, 623, 066 | 104, 260 | 40, 000 | 954, 778 | 278, 331 | 245, 697 |
| Wyoming..... | 688, 791 | 72, 898 | ----- | 176, 475 | 281, 666 | 157, 752 |
| Alaska..... | 3, 478, 734 | 71, 283 | ----- | 18, 937 | 3, 153, 264 | 235, 250 |
| Guam..... | 287, 160 | ----- | ----- | ----- | 287, 160 | ----- |
| Hawaii..... | 2, 889, 362 | 74, 986 | 40, 000 | 182, 334 | 1, 457, 996 | 1, 134, 606 |
| Puerto Rico..... | 595, 964 | 50, 000 | ----- | 545, 964 | ----- | ----- |
| Virgin Islands..... | 20, 000 | ----- | ----- | 20, 000 | ----- | ----- |

¹ On the basis of checks issued.² Totals do not include payments made to the Air Force, \$989,619; Navy, \$649,661; Veterans' Administration, \$2,649.

Food and Drug Administration

THE ORIGINAL Federal Food and Drugs Act went into effect on January 1, 1907. Nationwide commemoration during the whole year 1956 of the passage of that law immeasurably increased public understanding of the importance of food and drug control in our very complex modern life. A host of new and increasingly difficult problems must be faced today and in the years ahead. New developments will continue to serve the public health, but will not decrease the need for watchful protection under our food and drug laws.

The public wants more and more convenient food—greater and greater diversification—improved nutrition—better packaging. To meet these demands industry scientists must employ a wide variety of substances in food which they did not previously contain. In the development of these newer foodstuffs there is opportunity for serious error. Both industry and regulatory scientists must be ever on the alert to prevent changes from reacting in any way to the detriment of the consumer. They must also prevent public misunderstandings fostered by uninformed statements questioning the safety of the food now on the market. While no food known to be injurious is on the market today, authority is needed to insure the safety of products containing new chemical additives.

Also, in the field of new drugs, there must be constant watchfulness lest products that save lives and ease the pain of the suffering do not in turn take their toll when administered over the years to patients who may develop adverse reactions.

The fiscal year 1957 was a fruitful one for the Food and Drug Administration. In the first year of the expansion program recommended by the Citizens Advisory Committee at the end of fiscal year 1955, there was an increase of 15 percent in appropriations over those of the previous year. This increase permitted a return to the size

of the enforcement staff of 1951, the previous high. The inspection staff in 1956 numbered 250; in 1957 it was increased to 300. Despite the nationwide shortage of professional young people of the caliber FDA needs to train for its work, the budgeted positions for 1957 were filled with promising personnel.

The Department requested and Congress approved for the 1958 fiscal year an increase of 19 percent over the 1957 appropriation for expansion of current activities, in addition to certain specialized expenses not in previous budgets, including replacement and modernization of equipment and a new field district headquarters.

The 1958 increase was requested to permit added attention to new drugs, and to more basic scientific research, including pharmacological studies on pesticides and chemical additives, nutritional studies on processed foods, bacteriological studies on precooked and frozen foods, reappraisal of some official testing methods for drugs, and studies of new cosmetic ingredients. It also included more attention to food standards, and an increase in the number of establishments to be inspected and samples to be collected for examination.

The Citizens Advisory Committee recommendations concerning management and operations have received careful study and been acted upon in many ways. An internal reorganization led to the establishment of five Bureaus, with the Office of the Commissioner maintaining direct supervision over administrative management, relations with States, trade, industry, and consumer groups, and matters relating to new laws and regulations. The scientific divisions were grouped into the Bureau of Physical and Biological Sciences. The other Bureaus are Enforcement, Field Administration, Medicine, and Program Planning and Appraisal.

A carefully planned survey was begun in 1957 in an attempt to measure, by statistically sound methods, the potential workload of the Food and Drug Administration. This will be of value in calculating manpower requirements and other aspects of budgetary planning and in directing enforcement activities.

The Citizens Advisory Committee also recommended increased attention to medical quackery and economic cheats, and more educational activities to inform consumers and industry of FDA programs, objectives, and opportunities to further public protection. At the end of the year, more defendants were serving jail sentences for false curative claims than at any time in FDA history—four of them after prolonged litigation.

Statutory authority to issue public warning against activities involving imminent danger to health was invoked by poster warnings against an ineffective cancer treatment. Education of the public as to facts and fallacies concerning food and nutrition was likewise

stressed in an attempt to offset organized promotion of food supplements as medicines to cure or prevent serious disease conditions.

Those fanatically swayed by cultist teachings—and prejudiced against recognized medical treatment—have been encouraged by every means known to specialists in mass psychology to protest Government persecution of their “leaders” or “masters.” Through mass meetings under the guise of “scientific lectures,” radio, T. V., circulars, “religious” publications, and even barnside signs, the public has been encouraged to write to congressmen and the President, demanding investigations of FDA actions. Countersuits were threatened, and subsequently filed, against the Secretary of Health, Education, and Welfare, and the Commissioner of Food and Drugs. The Federal judge who sentenced a “health food” lecturer and the United States attorney who prosecuted him were sued when the defendant was required to serve his jail sentence.

Food, Drug, and Cosmetic Act

DISASTER AND DEFENSE ACTIVITIES

Although natural disasters—hurricanes, floods, tornados—occurred repeatedly throughout the year, the major damage to foods and drugs was to unharvested crops and retail stocks. Alert State and local officials, assisted where needed by FDA inspectors, prevented consumption of polluted supplies. In some cases the inspectors reported “Nothing left to salvage.”

An explosion on a Brooklyn pier in December damaged 27 food and cosmetic processing and warehousing firms nearby. Approximately 235 tons of merchandise was damaged by polluted water, excessive heat, and flying debris, including glass. FDA inspectors, working with city health officers, checked the damage and supervised destruction.

In the same month fire in a storage grain elevator in South Chicago required the diversion of thousands of carloads of water- and fire-damaged grain to animal feed and industrial use. Other major losses included 2,700 tons of canned citrus juice and 200 tons of frozen fish flooded with polluted water when freighters were rammed at sea. FDA inspectors maintained surveillance over disposal of the damaged food.

The three FDA civil defense programs conducted under a delegation from the Federal Civil Defense Administration were continued. Training of State and local food and drug officials in the problems of radiological, biological, and chemical contamination of foods and drugs was expanded to include segments of the food industry. The food test program was continued by exposing various types of staple

foods to atomic explosion. Some progress was made in studying the vulnerability of packaged foods to bacteriological attack and decontamination to permit safe use of foods so exposed. Each of these FDA programs was terminated at the close of the fiscal year, since no funds were appropriated to continue the work in fiscal year 1958.

ON THE FOOD FRONT

Potential Health Hazards

Deleterious ingredients.—In cooperation with the United States Department of Agriculture and the National Milk Producers Federation (which reaches some half million farmers) an intensive program has been undertaken to eliminate antibiotic and pesticide residues from the milk supply. Changes in the regulations to provide better label warnings to farmers are discussed under New Regulations.

Full-time surveillance of the use of pesticidal chemicals to meet crop problems in major growing areas began when the official tolerances for pesticides on raw agricultural commodities became fully effective in July 1956. When misuse of the pesticides that would lead to excessive residues was encountered, the growers were warned through citations that crops so treated could not be shipped interstate.

Growers, in general, have responded to the educational program of State and Federal food control groups, agricultural agencies, and pesticide distributors urging them to comply rigidly with schedules recommended by experts. When pests are threatening their crops, however, farmers occasionally use a wide variety of insecticides without regard for recommended practices. An FDA inspector found that a lettuce farmer had used chlordane, endrin, dieldrin, DDT, toxaphene, malathion, cryolite, and rotenone on his crop and still had 11 days to go before harvest!

Thirty-two seizures were made to remove from the market foods contaminated with chemicals. Twenty-one contained pesticidal residues not permitted by formally established tolerances. Eighteen involved carloads of grain containing grain treated for seed use with mercurial compounds. A carload of celery was seized in two cities. The shipper had applied parathion in an amount 5 times the recommended maximum within 15 days of harvest. Another seizure involved frozen spinach which contained a DDT residue in excess of that permitted on fresh spinach.

Other foods seized because of potential danger to health were four shipments of imitation vanilla flavor containing coumarin, four of shell pecans dyed with uncertified coal-tar colors, ice cream cones containing boric acid, and two carloads of wheat contaminated by residues of lead pigments previously transported in the car. After the

first load was seized, the car was reloaded without cleaning and the second load also became contaminated with lead and was seized.

Vessels transporting green coffee in burlap bags have also carried ore concentrates and poisonous insecticides. Improper cargo handling or disasters at sea have resulted in large lots of coffee becoming seriously contaminated, with detentions required.

Prosecutions were filed in 1957 against three bean warehouses and responsible officers, based on the reckless use of poisonous rodenticides which contaminated about 5,000 tons of stored beans the previous year. There was only one recall of a dangerous food—grape jelly containing slivers of glass, possibly from a broken thermometer.

Food Poisoning.—FDA investigated 22 staphylococcus outbreaks affecting 950 individuals. Insanitary handling during the preparation of the foods for serving and inadequate refrigeration continue to be the most important contributing factors. Inadequate processing in home-canned foods was responsible for 7 botulism outbreaks with 6 fatalities among the 13 persons affected. In 3 separate outbreaks, affecting over 700 persons, boiled turkey was implicated. Three persons became ill after eating frozen dinners, defrosted at some stage after production. This points to the dangers of inadequate refrigeration during the transportation and marketing of "heat and serve" frozen foods. Defective hermetically sealed containers were suspected in 4 outbreaks; where the investigations revealed additional leaking containers the lots were removed from the market.

Two ranchers lost valuable farm stock after feeding them commercially prepared wafers. The wafers were found to contain excessive urea and both lots were seized.

To Keep Food Clean

Food seized for filth or decomposition totaled 5,675 tons—83 percent of the total volume seized. Of 533 actions against unfit foods, 249 involved merchandise that became unfit in storage after interstate shipment. An additional 4,162 tons of unfit food were voluntarily destroyed or converted to nonfood use by their owners after their attention was called by inspectors to unsatisfactory lots.

Written notices of violative conditions, followed by laboratory reports on unfit foods sampled, bring them forcefully to the attention of top management and often result in voluntary correction.

Clean raw materials have been emphasized in educational programs carried on with the assistance of industry and agricultural groups and State and local food and drug officials. Wheat and corn, cream, grape, and fish programs were all aimed toward elimination of unfit materials for processing.

FDA personnel have worked with industry on better laboratory procedures, and have helped plan and further improvement pro-

grams. State and local officials and agricultural groups can bring the clean raw materials message to the individual producer much more directly and effectively than can FDA.

Under lower tolerance levels of rodent and insect contamination in carload lots of wheat, which went into effect in July 1956, 44 carloads were seized, in comparison with 11 in fiscal year 1956, and 12 in the 6 months the program was in effect in fiscal year 1955. Since the annual shipment of wheat approximates 500,000 carloads it is evident that the industry as a whole is benefiting from the intensive educational work in which various organizations have participated.

In the dairy field "drip milk" collection became a regulatory problem that ended when 39 producers abandoned the practice after citations to hearings and the principal user reportedly went out of business for lack of supplies. Drip milk is the residue draining from cans while they are inverted on conveyors after dumping and enroute to can washes. This milk contained excessive sediment. FDA inspectors followed trucks carrying drip milk to a separator and thence to a creamery where it was seized before it was used for butter.

Table 1.—Actions on foods during the fiscal year 1957

| Projects | Seizures | Criminal prosecutions instituted | Injunction petitions |
|---|----------|----------------------------------|----------------------|
| Total | 672 | 77 | 8 |
| Beverages and beverage materials..... | 6 | | |
| Bakery, ready to eat cereal, and macaroni products..... | 14 | 15 | |
| Cereals and grain products: | | | |
| Human use..... | 111 | 9 | 1 |
| Animal use..... | 5 | 3 | |
| Chocolates, sugars, and related products..... | 22 | 4 | |
| Dairy products: | | | |
| Butter and churning cream..... | 15 | 1 | |
| Cheese and other dairy products..... | 5 | 6 | |
| Eggs and egg products..... | 8 | 2 | |
| Flavors, spices, and condiments..... | 31 | 2 | |
| Fruits and fruit products..... | 27 | 1 | |
| Meat products and poultry..... | 21 | 3 | 1 |
| Nuts and nut products..... | 72 | | |
| Oils, fats, and oleomargarine..... | 10 | | 1 |
| Seafood..... | 108 | 13 | 3 |
| Vegetables and vegetable products..... | 72 | 7 | 1 |
| Miscellaneous foods (mixed lots)..... | 11 | 1 | |
| Warehoused foods..... | 109 | 9 | 1 |
| Food for special dietary uses ¹ | 24 | | |
| Violative serving of oleomargarine..... | | 1 | |
| Food adjuncts..... | 1 | | |

¹ Includes vitamin products intended as food supplements.

The poultry program advanced in 1957 with agreements with respect to inspection and disposition of unfit poultry, following discussions for a number of years with other Federal agencies concerned with the fitness of poultry. Among the factors agreed upon were the necessity for antemortem inspection and for immediate evisceration after slaughter. The agreement culminated in an FDA manual to

assure uniformity of action, intended primarily to provide guidelines for enforcement and public health officials.

Slow but progressive improvement was encountered during poultry plant inspections and market sampling; fewer seizures were required.

Surreptitious dealings in incubator reject eggs—suitable only for tanning use—are still encountered. A State fine was levied against a manufacturer receiving night deliveries by trucks from three other States of incubator rejects ranging from 5-day clears to fully developed embryos. Federal seizures were made of substantial quantities of rejects in his possession. Two shippers of decomposed frozen eggs were fined in Federal courts.

The courts were requested to enjoin five firms from shipping popcorn, poultry, pickles, vegetable oils, and dried beans that had been processed or stored under insanitary conditions. At the end of the year temporary restraining orders were in effect in those cases where a final court hearing was pending. Two defendants prosecuted for contempt of a November 1955 injunction prohibiting shipment of poultry prepared under insanitary conditions were fined \$500 each.

Sixty-two criminal prosecution cases charging the shipment of filthy or decomposed foods or insanitary operations were instituted during the year. The highest number of cases involved perishable products—bakery items and seafood—which are distributed so rapidly that it is often impossible to protect the public by seizure actions. Next in number were warehouses and their operators, who were charged with holding food under insanitary conditions.

Two and a half million pounds of chocolate stored on a railway pier after import was so seriously attacked by insects that salvage under bond was required, with 33½ tons being lost by surface trimming. A car used to transport a load of flour harbored rodents which resulted in a 20-ton loss.

One of the most severe food penalties of the year was 18 months in jail and a \$2,000 fine levied against a producer of filthy mushroom salt, on a second-offense charge. He lost his appeals.

Pocketbook Protection

Limitations of manpower in recent years have required restriction of work against abuses affecting the consumer's pocketbook. With the increase in the 1957 appropriation, more attention was turned to this field. One of the leading projects was against substandard oysters that contained excess water, often deliberate, through improper drainage or extensive soaking. Thirty-one shipments packed by 22 firms, were seized. Injunction cases were filed against three firms and one enjoined in the previous fiscal year was fined \$7,500 and its president sentenced to 90 days in jail for criminal contempt.

Other items seized for excess water were frozen fish containing as much as 2 pounds of ice in a 15-pound carton, low-fat butter, and diluted orange juice.

Eight lots of misbranded olive oil blends were seized for substitutions of cheaper oils in the blends. Labeling practices were improved in one production area after a number of blenders were cited to hearings. Other foods seized for debasement or misbranding included canned vegetables failing to meet official standards, country sorghum containing corn sirup, coffee adulterated with spent grounds and cereal, and cocoa with cottonseed meal or excess shell.

Seafood Inspection Service

Two seafood canneries operated under FDA seafood inspection, a service furnished on a fee basis for processors who voluntarily apply for it and meet Government requirements for sanitation and controls. They packed 849,797 pounds of shrimp and 20,918 cases of oysters. The service became inactive at the end of the fiscal year, since no firms applied for continuation of inspection. When seafood inspection began in 1934, 90 percent of the canned shrimp packers operated under it and learned how to pack wholesome shrimp.

PRODUCTS OF SPECIAL DIETARY SIGNIFICANCE

In June FDA District Chiefs throughout the country launched an educational campaign designed to warn consumers against false and misleading claims made in the privacy of homes by house-to-house food supplement peddlers. Their principal sales "pitch" is misinformation about nutrition, presented by "scare" methods.

In October a jury convicted a "nutrition expert" and his firm for the promotion of "natural" vitamin supplements through misbranding claims in collateral literature to be used by house-to-house salesmen. An appellate court upheld the Government's charges that the following claims were false and misleading: (1) That nearly everyone in this country is suffering from malnutrition or may be endangered by it. (2) That United States soils are so depleted that they no longer produce nutritive food. (3) That refining and processing of foods destroy their nutritive value. (4) That practically all of mankind's illnesses and diseases stem from improper nutrition. (5) That the defendant's products would treat, cure, or prevent all of the diseases of mankind. Among the "deficiency diseases" in the sales literature were diabetes, polio, tuberculosis, and cancer.

In a 20-page opinion the court stated that prospective purchasers "are more likely than not to be persons who are pathetically eager to find some single cure-all for the diseases with which they are afflicted, or who are susceptible to luridly painted scare literature as to the prospect of being disease-ridden unless they consistently partake of

the vaunted drug product." The firm was fined \$6,000 and its head was sentenced to a year in jail; his appeal of the conviction was lost and the Supreme Court refused to review the case.

Also convicted during the year were a number of house-to-house salesmen of a food supplement, who made exaggerated curative claims that numerous friends and relatives had recovered from a wide variety of serious disease conditions after they began taking this food supplement regularly.

The sentence in May 1956 of a pioneer "health food" lecturer who had been found guilty by a jury the previous year of misbranding his wares was appealed. In 1957 he lost his appeal and is now serving his year and a day jail sentence, with strong protests by followers.

Twenty-six shipments were seized because they contained less vitamins than declared on their labels. Three shipments of "low-sodium" foods were seized because they contained more sodium than labeled. A manufacturer of foods designed to provide carefully calculated amounts of sodium and vitamins for use in hospital diets was fined in a case originating in complaints from hospital dietitians. Samples revealed sodium ranging as high as 426 times the amount claimed on the label and vitamin shortages as high as 94 percent. Another firm fined for vitamin deficiency in its product had misplaced decimals in a manufacturing formula.

DRUGS AND DEVICES

The pilot study on the reporting of adverse reactions to drugs, inaugurated in 1955 in cooperation with various medical, pharmacy, and hospital groups, was extended for another year. Fifteen hospitals throughout the country report monthly to FDA all cases encountered, to test the feasibility of a large-scale system of voluntary reporting to assist in the evaluation of the safety of new drugs after they are released.

Salicylates have caused a number of deaths through careless use that might have been avoided by warnings of their potential hazards. Under a program initiated in April 1957, special attention is being given to the labeling of salicylates during FDA inspections of drug manufacturing plants and through special surveys of stocks of aspirin and other salicylates in wholesale drug houses.

Problems in determining what levels of cobalt may be safely offered for use in self-medication, what amounts may be offered under medical supervision, and at what levels cobalt-containing drugs must be regarded as new drugs were resolved by the publication of a policy statement in the October 27, 1956, Federal Register.

Another policy statement, published in the Federal Register of February 12, 1957, warned that stem-type and wing-type intracervical

and intrauterine pessaries are dangerous, serve no useful purpose, and are misbranded under any form of labeling. Subsequent investigations indicated that manufacturers and distributors of these devices have discontinued them.

Recalls.—Four manufacturers recalled 29 batches of digitoxin tablets having only 57 to 81.5 percent of the declared potency when FDA found subpotent stocks. The other three manufacturers recalled seven batches from more than 30 firms. Also at FDA's suggestion, six manufacturers recalled digitalis tablets containing only 55 to 75 percent of their labeled potency.

Another recall involved a batch of obstetrical posterior pituitary extract with practically zero potency. Twelve other recalls were based on defects that might have injured patients, such as non-sterility, fever-producing impurities, lost potency, and, in two cases, decomposition that caused bottles to explode on dealers' shelves.

Some vials of 40 mg. tablets of a drug used for high blood pressure were labeled as 20 mg.; the manufacturer's sales staff visited 27,000 wholesale and retail druggists searching for the misbranded tablets. Other mix-ups requiring recalls included a central nervous stimulant labeled as a tranquilizer, an epinephrine preparation labeled as an injectable liver preparation, turpentine labeled as castor oil, dextrose in saline labeled as invert sugar in saline, and "digestive tablets" that were actually desoxyephedrine.

Two recalls involved products containing female sex hormones. One was a batch of vitamins probably contaminated from equipment that had been used for the estrogenic material; a small but definite amount of contamination was found. In the second there was deliberate addition of estradiol to a hair treatment by a firm unaware of the dangerous nature of the preparation until warned by FDA.

Illegal Sales

Of 114 drug prosecution cases filed, 100 were based on violative sales of prescription drugs. FDA investigations began after complaints were received from law-enforcement officials, physicians, social workers, and families of persons being injured by the drugs.

In the 105 cases terminated in 1957, 145 individuals were convicted on their own pleas or by the courts. In about 10 percent of the cases the defendants were persons with no professional training who sold the drugs at truck stops, general stores, or through peddling. Seven individuals, some of them previous offenders, were sentenced to serve jail sentences ranging from 2 months to a year. On others, suspended jail sentences, probation periods, and fines were imposed.

Adulterated and Misbranded Drugs and Devices

After a 6-week trial in the Federal court at Pittsburgh a jury in November 1956 sustained the seizure of approximately one-half million red and black pills destined for national distribution in the treatment of cancer. At the trial the Government presented the testimony of about 80 witnesses, mostly physicians and scientists. Included were some of the country's top medical and pharmacological authorities specializing in the field of cancer detection and therapy.

By revealing the complete medical histories of the claimed cancer cures which the appellant presented at the trial and those described in the seized labeling, the Government showed that the so-called cures fall in the following categories: (1) The patient never had cancer, or (2) The patient was cured or adequately treated before going to the clinic, or (3) The "cured" patient died of cancer or still has it.

In 1953 the Texas clinic was enjoined from further shipments of the drugs misbranded as an effective treatment for cancer. In denying a motion for a new trial, the court in the Pittsburgh case said that the "medications have again been weighed and found wanting." The Pennsylvania clinic is now under a temporary restraining order to prevent further distribution pending hearing in the fall of 1957 on the Government's complaint for a permanent injunction. In January 1957 a "Public Beware" warning poster was distributed to post offices and other public buildings by the Food and Drug Administration under section 705 (b) of the act, which provides for publicity to be given in matters involving imminent danger to health and gross deception of the consumer. The poster warned the public that the treatment was worthless for internal cancer and emphasized that cancer can be cured only by surgery or radiation. In an editorial at the time the posters went on display a leading metropolitan paper said, in part:

The Government has taken its drastic action to protect the American people. The so-called cure is expensive; its price is now to be advertised in every post office. Its price in bitter disappointment can be almost unbearable. And in plain words the poster says that death may be the price of neglecting proper treatment "because of the lure of a painless cure."

Previous reports have outlined the injunction and contempt litigation based on persistent attempts to traffic in "orgone" devices for the cure of cancer and other serious conditions, and the fine and jail sentences imposed in May 1956. After the Supreme Court declined a review in February 1957, the district court refused arguments to set aside or reduce the penalties of 2 years in jail for the promoter and 1 for his distributor.

Another treatment for cancer, and nostrum for diseases in general, under the guise of a blood and kidney remedy, brought a conspiracy trial, injunction of the individuals and firms manufacturing and distributing the drug, prosecution of the manufacturer for criminal contempt of the injunction, and jail sentences suspended on condition that they not manufacture, possess, or sell any remedy for the treatment of animal or human disease.

Other drug injunctions granted during the year were against a naturopath who distributed from his clinic herbs with excessive therapeutic claims; a manufacturer restrained from false and misleading claims for an ulcer "remedy"; a distributor of homeopathic remedies seriously misrepresented by collateral literature; and a distributor of "vim and vigor" proprietary remedies with promotion especially designed for the aging.

Ten seizures were made of a vine and root imported without a new-drug application and promoted with claims that it was an effective aphrodisiac. Agents used reprints of a sensational magazine article entitled "The Vine That Makes You Virile." Licensed drug channels did not handle the product.

The total of 122 seizure actions against drugs (excluding vitamin preparations) was fairly evenly divided between inherent defects and misbranding.

Ten other shipments were seized because they had no effective new-drug applications. About half of them consist of untried products that may be dangerous and/or promoted with unfounded claims. The others were purchased by small distributors from recognized manufacturers and repackaged under their own names without filing new-drug applications.

Included in misbranded devices seized were a number of low-grade uranium items bearing claims for arthritis and other ills. Other devices seized were stretching harnesses, electronic condensators, oscillators, and massagers.

Six veterinary preparations were seized for false and misleading claims and violation of certification and new-drug requirements.

New Drugs

During the fiscal year 530 new-drug applications, including 85 for veterinary use, were received. On the condition of the submission of final printed labeling 334 for human use and 59 for veterinary use were permitted to become effective. Fourteen hundred supplemental applications for human and 596 for veterinary drugs became fully or conditionally effective. Revised new-drug regulations, effective August 24, 1956, required a period of readjustment for both industry and FDA.

Among the new products considered during the year were tranquilizing agents alone and in combinations with relaxants, an antihistamine, and an estrogen; several products with delayed or prolonged action because of slow disintegration in the intestinal tract; two new antibiotics, two iron preparations, an anticoagulant; two progesterone-like steroids for menstrual disorders; an estrogen with prolonged action; a new androgenic steroid; two sulfonamides; two antihistamines; a volatile general antidiuretic; and two narcotic analgesics. Many distributors' supplements went into effect for parenteral noncrystalline vitamin B₁₂ products prepared by new processes. When the first application of a drug used orally in the treatment of diabetes mellitus was permitted to go into effect, a release was issued explaining the limitations of its uses.

COSMETICS AND COLORS

There were no court cases based on violation of cosmetic requirements. A prosecution case was filed against a firm for making color mixtures from an uncertified batch of coal-tar color.

CERTIFICATION SERVICES

Coal-tar colors.—All coal-tar colors used in foods, drugs, and cosmetics (except hair dyes) must be from batches certified as harmless by FDA. In 1957, 5,146 batches, representing 5,346,613 pounds, were certified, and 24 batches, representing 14,755 pounds, rejected.

Insulin.—The act provides for predistribution testing and certification of all batches of insulin marketed. Examination of 388 samples resulted in the certification of 322 batches of insulin and 64 batches of materials for use in making insulin-containing drugs.

Antibiotics.—The predistribution testing and certification of certain antibiotics is also provided by amendments to the act. Examinations were made of 16,654 batches of penicillin, chlortetracycline, bacitracin, chloramphenicol, dihydrostreptomycin, streptomycin, tetracycline, neomycin, nystatin, erythromycin, novobiocin, polymyxin, oleandomycin, and oxytetracycline during the fiscal year. The last 7 antibiotics are not included in the certification amendments, but are tested when they are mixed with those requiring certification. Forty-three batches were rejected for failing to meet the following standards: Potency (27), sterility (9), and moisture (7). In addition, manufacturers withdrew their requests for certification of 19 batches because they failed to meet sterility and other standards.

Enforcement of Other Acts

A total of 105,728,289 pounds of tea was examined under the Tea Importation Act, in contrast with totals of approximately 104 million in the fiscal year 1956 and 97 million in 1955. Rejections for failure to measure up to the standards set by the United States Board of Tea Experts totaled 205,082 pounds, or 0.19 percent. Six rejections were appealed to the United States Board of Tea Appeals, which upheld the decision of the FDA examiner in four cases, and in one portion of one other. The appeal was sustained in the other portion of this case and in the remaining case.

Three caustic poisons were seized for failure to bear the labeling required to warn users of their potential danger if misused; all were bowl cleaners. No permits were issued for importations of milk from Canada. No legal actions were instituted under the Filled Milk Act.

New Court Interpretations

The Supreme Court did not review any cases under the Federal Food, Drug, and Cosmetic Act during the fiscal year 1957, but it denied six petitions for certiorari. Four were appeals from convictions where jail sentences were at stake, discussed in earlier sections of this report. The other two were appeals from decisions of the Court of Appeals for the Fifth and Seventh Circuits upholding the constitutionality of the Durham-Humphrey amendment which prohibits the dispensing of dangerous drugs without prescription.

A seizure contest in which some of the tomato paste seized was released while the rest was condemned by order of an appellate court was discussed in the 1956 report. Following this decision the claimant filed a motion that the Government pay all storage charges for the libeled material, not only for the period between seizure and adjudication, but also for the time between sampling and seizure. The district court permitted this motion and the Government has appealed.

The Court of Appeals for the Ninth Circuit upheld the district court's decision, reported last year, that he did not have the power to order restitution in an injunction proceeding.

The Court of Appeals for the Second Circuit affirmed the district court's decision, also reported last year, in a suit under the Tort Claims Act seeking to recover damages involving importations of tomato puree that were later seized. The district court had dismissed the suit on the grounds that the Tort Claims Act exempts the Government from suit for the performance of discretionary powers.

Defendants in a drug case filed a motion to dismiss the prosecution against the partnership on the grounds that the partnership was not a legal entity. The district court accepted the motion, basing his ruling on a divided Supreme Court decision in a case unrelated to the Food, Drug, and Cosmetic Act.

The United States Court of Appeals for the Second Circuit affirmed the order of the Secretary delisting three colors from the list of coal-tar colors eligible for certification for use in foods. The order was based on evidence that these could no longer be regarded as harmless. Just after the close of the year, the United States Court of Appeals for the Fifth Circuit set aside the Secretary's order delisting one of these colors (FD&C Red No. 32) and held that the Food and Drug Administration has authority to establish tolerances for colors. Since these two opinions appear to be in direct conflict, the Government filed a petition requesting the entire Fifth Circuit to rehear the case, which the court denied. It will be recommended that the appeal be carried to the Supreme Court.

Changes in the Law and Regulations

The only change in the Food, Drug, and Cosmetic Act in the 1st session of the 85th Congress was Public Law 250, amending section 304 (d). It permits under certain conditions the reexportation of seized articles imported into the United States, if the violation did not occur after import, if the articles are not dangerous to health, and if the importer was not aware that the goods were violative.

Nine bills were before the House, presenting six new procedures for dealing with chemical food additives. The Department submitted its recommendations for a bill on April 8 but had not yet testified at hearings which were in progress before the 1st session adjourned.

Each of the bills would provide that the promoter of a new food additive, before commercial marketing, test it to establish the safety of the proposed use and submit the results of the tests to the Government. Most of the proposals would exempt uses already approved by the Food and Drug Administration or, in the case of meats, by the Meat Inspection Branch of the Department of Agriculture. Each bill would exempt from its coverage chemical uses generally recognized as safe by appropriate experts. Principal areas of disagreement are whether the criteria of acceptance be based entirely on safety or be enlarged to include usefulness to the consumer, functional value, or necessity of use, in case of poisonous or deleterious chemicals, and what type of appeal procedures should be provided.

Several bills were introduced to curb abuses occurring from indiscriminate use of barbiturates and amphetamine. They define who may engage in the production and distribution of these drugs, and require such firms to maintain complete records of their handling of these compounds, which would permit improper sales to be detected by simple audit. The proposed law would grant Federal jurisdiction over the sale of such drugs regardless of their origin. It would also make unauthorized possession of these drugs an illegal act.

Another bill introduced is intended to regulate the labeling of hazardous articles intended for household use. This bill, which would repeal the Federal Caustic Poison Act, would require the labeling to bear, among other things, warning statements concerning the article, instructions for safe handling and storage, and instructions for first aid in the event of injury where appropriate. Such legislation would be beneficial because the numerous articles commonly found in the cleaning department of the modern home bear little resemblance to the few in use 30 years ago when the present Federal Caustic Poison Act was passed to protect against accidental injury from such substances.

A bill introduced toward the end of the session would authorize color certification on the basis that a color must be harmless under conditions of use specified in FDA regulations.

Numerous other bills introduced have not yet received as much attention as those outlined above.

REGULATIONS

Coal-Tar Colors.—Appellant court decisions on the November 1955 order removing FD&C Red No. 32 and FD&C Orange No. 1 and No. 2 from eligibility for certification for food use are discussed under New Court Interpretations. Continued pharmacological evaluation of the safety of other colors on the FD&C list resulted in proposals in January 1957 that four additional colors, FD&C Yellow No. 1, No. 2, No. 3, and No. 4, be removed from the list certifiable for internal use and added to the list of colors for external drug and cosmetic use only.

Drugs.—The revised new-drug regulations outlined in the 1956 report were published in final form on July 25, 1956. A portion of the regulations dealing with investigational drugs was revised on April 20, 1957, to remove the requirements that shippers of new radioactive drugs obtain signed statements from investigators when the consignee has been licensed by the Atomic Energy Commission.

During the fiscal year, 879 amendments and 41 new monographs were added to the antibiotics regulations.

The third market milk survey to determine the presence and extent of antibiotics in milk was reported in 1956. It was obvious that some farmers were not heeding the required labeling warning on antibiotics for mastitis therapy to withhold milk from food use for 3 days after

the last treatment. New regulations were issued in 1957 aimed at improving procedures following such therapy. One provided for the warning to be placed on the immediate container of the drug, rather than in accompanying literature. Provision was made for shortening the number of withholding hours after the last treatment in case the person requesting certification of the antibiotic presents to FDA convincing evidence that it will not be retained in the milk after the proposed time. These regulations were published on April 30, to become effective in 90 days. Another regulation concerning antibiotics in intramammary mastitis preparations limits the penicillin content to 100,000 units as a maximum dose. It was published on May 14, also to become effective in 90 days.

Foods Standards.—Standards of identity were established for canned figs and for grated American cheese food. Standards of fill of container for canned tuna fish were made effective August 13, 1957; standards of identity will become effective February 13, 1958, except for two labeling provisions which were stayed pending a hearing.

Standards of identity were promulgated for ricotta cheese and part-skim ricotta cheese. Importers filed objections on the grounds that the name ricotta was not properly applied to cheese made from cow's milk. The order was stayed and a hearing may be required.

Industry proposals and suggested alternate proposals were published for frozen concentrated orange juice and several related products, and also for frozen lemonade concentrate.

On the basis of a hearing held the previous year on an identity standard for partially creamed cottage cheese it was concluded that evidence in the record of the hearing failed to establish that the standard would promote honesty and fair dealing in the interest of consumers.

A hearing was held on an objection to the prune juice order, since it did permit honey as an optional ingredient. No ruling had been made on the hearing record at the close of the year.

Vitamins.—Available information with respect to riboflavin requirements when hearings were held in 1940 on the minimum daily requirements for vitamins and minerals under section 403 (j), was based on observations relating to cure of deficiency. Later studies have made it apparent that the original estimates were too high. On June 1, 1957, the regulation was amended to lower the adult minimum daily requirement for riboflavin and establish minimum daily requirements for niacin.

Pesticide Chemicals.—On July 22, 1956, the Pesticide Chemicals Amendment became fully effective. During the year, 46 petitions for tolerances or exemptions were received, of which 9 were incomplete. Of the 37 accepted and some awaiting processing, 30 petitions resulted in the establishment of permanent tolerances, 5 in permanent

exemptions, and 4 in temporary tolerances. Since the amendment was enacted in 1954, over 1,450 tolerances or exemptions have been established for 87 pesticide chemicals.

During the year it was discovered that certain organic phosphate pesticides possessed more than additive toxicity to test animals when administered together. This led to extensive investigation of the effect from feeding combinations of this class of pesticides. Greater than additive effect or potentiation has been observed with only a few combinations. Because of these findings FDA announced that in considering a petition for a tolerance or tolerances it will require experimental evidence showing the toxicity of the compound when fed to test animals with each of the other organic phosphate pesticides which has a tolerance at that time.

Recent studies have revealed that certain pesticides when present in the food or when sprayed on cows will appear in the milk, for which there is no tolerance. The National Academy of Sciences has been requested to select a committee to make recommendations on a petition requesting a tolerance for a pesticide in milk.

Scientific Investigations

Reorganization of the scientific Divisions into the Bureau of Biological and Physical Sciences—to strengthen FDA's scientific research activities—was mentioned in the introductory chapter. Evaluation of the safety of foods, drugs, and cosmetics offered to the public in this constantly changing period and the development and improvement of testing methods form the solid foundation of enlightened enforcement activities.

A major survey planned and reviewed by FDA scientists and carried on through inspection personnel throughout the country was concerned with the incidence of severe reactions to antibiotics from 1953 to early in 1957. It covered nearly one third of the beds available in the general hospitals of this country and the observations of more than 1,600 physicians. The survey indicated that the great bulk of reported life-threatening reactions to antibiotics followed penicillin injection and that severe reactions to this drug have increased in frequency as more people have been treated with it.

Other antibiotic studies included evaluation of the safety and efficacy of new antibiotics, laboratory and clinical results obtained by various combinations of antibiotics with each other and with other substances, and the development and improvement of assay methods.

Another major survey, initiated in fiscal year 1957 and still under study, concerned the contamination of our foodstuffs resulting from the increasing applications of atomic energy, both civilian and military. While the resultant rise in radioactive background probably

will not be significant by present concepts, a base line was needed for later orientation. To establish this, approximately 2,000 samples of staple canned food preserved prior to the explosion of the first atom bomb, were collected during the year, with the help of other Government agencies, industry, and consumers. The British and New Zealand Governments and the U. S. Antarctic Programs furnished samples left in the Antarctic in 1908-1913 and 1940. All of the samples are being ashed, analyzed for their potassium content for correction of normal residual radioactivity, then analyzed for basic radioactivity. A continuing survey will produce samples that may be checked against this authentic, pre-1945 data to check any increase in radioactive content.

Pharmacological studies are in progress to study the safety of ingredients used to furnish depot injections of drugs; the toxicity of combinations of two or more organic phosphates, beyond their cumulative effects; neurological effects of chlorinated insecticides; and harmful effects of certain coal-tar colors included in the diet of experimental animals; from the beginning of this study, 15 of the 19 coal-tar food colors have been tested, most of them quite extensively; 3 have been delisted, and 4 are under delisting proceedings.

The preclinical pharmacology of a number of chemical compounds suggested as having some value in the treatment of cancer, has been under study in cooperation with the Cancer Chemotherapeutic Center of the National Institutes of Health. In addition to observation of the effects of these compounds on various systems and their acute and subacute toxicity, some observations have been made on the nature of their biological activity.

Developing and adapting analytical methods to determine trace levels of toxic chemicals used or proposed for use in food production and processing demanded a very considerable part of the resources of FDA's food chemists. Investigations were made into ways pesticides were entering the food supply, including whether and in what form aldrin, dieldrin, and endrin may be stored in the fat of cows fed with forage treated with these pesticides. Evaluation of the residue consequences of pesticides proposed for tolerances is continuing.

Indication that some preparations of cobalin or B₁₂ for injection were not made from pure crystalline material according to U. S. P. standards led to the development of methods for regulatory action against impure preparations. The half million pernicious anemia patients who receive these injections will thus receive added protection.

A veterinary study involved implantation or injection of chickens with diethylstilbestrol preparations. To determine the presence of estrogenic activity added by the drug, 1,500 chickens were treated, slaughtered, and edible tissues collected for bio-assay.

During the year FDA drug chemists devised methods for the analysis of tablets of aspirin, phenacetin, and caffeine together and in admixture with other drugs which reduced analysis time from 1 to 2 days to 1 to 1½ hours. *In-vitro* procedures were also devised for "sustained release" dosage forms for various drugs. Infrared spectrophotometric methods were devised for belladonna alkaloids and for glyceryl trimitrate preparations. Studies are in progress with the Committees of Revision of the U. S. P. and N. F. to devise and revise official test methods for diethylstilbestrol, ergot alkaloids, curare alkaloids, *Rauwolfia serpentina*, reserpine, and digitoxin.

A sensitive gas chromatographic procedure was developed for the determination of nail lacquer solvents. An overall procedure for the analysis of lipsticks was completed by means of partition chromatography. Some of the difficulties in analyzing shampoos containing alkyl sulfates were resolved through the use of ion-exchange resins.

Microbiological research was concerned with problems of detection, prevention and control of food poisoning, and with studies relating to the sanitary quality of foods.

Enforcement Statistics

The 20,241 establishment inspections conducted by FDA were divided into 16,645 for foods, 3,058 for drugs and devices, 388 for cosmetics and colors, and 150 for miscellaneous products such as tea and caustic poisons. Of 18,831 domestic samples collected, 11,742 represented foods, 6,890 drugs and devices, 123 cosmetics and colors, and 76 miscellaneous. Import samples collected totaled 9,042.

In the 182 criminal actions terminated (or terminated for some defendants) in the Federal courts during 1957, the fines paid or assessed in cases pending on appeal, totaled \$152,233.92. The heaviest fine in a single case was \$7,500. In 59 actions the fines were \$1,000 or more. Jail sentences were imposed in 35 cases involving 37 individual defendants. The sentences ranged from 1 month to 3½ years, and averaged 9 months. Twelve individuals were required to serve the imposed sentences, and for 25 individuals they were suspended, on condition that violative practices be discontinued. Records of actions terminated in the Federal courts were published in 1,280 notices of judgment.

Table 2.—Number of samples on which criminal prosecutions and seizures were based and number of court actions instituted during the fiscal year 1957

| Item | Total | | Criminal prosecutions instituted | | Seizures accomplished | | Injunctions requested |
|---------------------------|--------------------------------|---------|----------------------------------|---------|-----------------------|---------|-----------------------|
| | Violative samples ¹ | Actions | Violative samples | Actions | Violative samples | Actions | |
| Total..... | 1,970 | 1,014 | 784 | 192 | 1,186 | 809 | 13 |
| Foods..... | 1,202 | 757 | 221 | 77 | 981 | 672 | 8 |
| Drugs and devices..... | 759 | 253 | 558 | 114 | 201 | 134 | 5 |
| Cosmetics and colors..... | 5 | 1 | 5 | 1 | ----- | ----- | ----- |
| Caustic poisons..... | 4 | 3 | ----- | ----- | 4 | 3 | ----- |

¹ The number of samples on which the actions are based always exceeds the number of actions; in seizures a variety of articles may be contained in a single shipment, while in criminal actions each sample usually represents a single shipment which forms one count of the action.

Table 3.—Import inspections and detentions during the fiscal year 1957

| Item | Total | Inspected and refused entry | Inspected and released |
|---|--------|-----------------------------|------------------------|
| Total..... | 29,140 | 4,974 | 24,166 |
| Foods..... | 26,049 | 2,890 | 23,159 |
| Drugs and devices..... | 2,981 | 2,059 | 922 |
| Cosmetics, colors, and miscellaneous..... | 110 | 25 | 85 |

Office of Vocational Rehabilitation

Research-Demonstration Projects and Increased Community Interest Are Shaping Rehabilitation

FOR THE SECOND consecutive year, a new record was set in 1957¹ in the number of handicapped persons prepared for employment and placed in jobs through the program of vocational rehabilitation.

The total of 71,607 rehabilitations during the period was 8 percent more than that during 1956, and 23.5 percent more than in 1955. It included 70,940 persons rehabilitated through the State and Territorial agencies and 667 who entered employment after receiving services provided by other public agencies or voluntary community groups that received partial support from Federal funds.

The increasing total of rehabilitations each year since enactment of Public Law 565, in August 1954, is evidence of the renewed vigor and increasing strength of the State-Federal partnership that is attacking the problems of disability. But another measure of progress is the emerging importance of elements of the program that were inaugurated or given greater impetus by the provisions of that legislation. The growth of these elements is significant, because it indicates trends that are giving shape to enlarged services to the disabled.

One element is the sustained interest of State agencies, along with other public organizations and community groups, in the development of new local rehabilitation facilities and services and in improving existing ones. Another is the enlarged facilities for teaching and instruction in rehabilitation subjects and for training persons in rehabilitation work, made possible by grants to educational institutions through provisions of the new legislation.

¹ Unless otherwise indicated, all subsequent references to 1957 will be to the fiscal year, that is, to the period between July 1, 1956, and June 30, 1957.

Another element—and perhaps the most significant to the future of the program—is the increasing variety and broadening scope of research and demonstration projects in vocational rehabilitation, conducted by public and nonprofit organizations over the country, with the aid of Federal grants made by the Office of Vocational Rehabilitation under provisions of Public Law 565. In the 48 projects that were initiated during 1957, there was captured an increasing amount of the imagination that talented individuals, using the resources of able institutions and organizations, can bring to bear on the problems of disability and on new ways to administer and to improve the vocational rehabilitation program.

REHABILITATIONS IN 1957

In the new record of 70,940 handicapped persons established in employment by the State vocational rehabilitation agencies in 1957, the major type of disability continued to be orthopedic impairments—amputations or other crippling conditions. About 39 percent (about 28,000) of the rehabilitants had this type of handicap, and, of these, about three-fifths were injured in accidents, and about one-fifth were handicapped by poliomyelitis, osteomyelitis, or arthritis.

Referrals came from many sources, but the largest proportion (about 33 percent) was from physicians, health agencies, or hospitals. Another 14 percent were referred by public welfare agencies, and 8 percent by State employment service offices. About 12 percent applied for services on their own initiative.

Half of the rehabilitants of 1957 had dependents, and about 65 percent were men. The average age at the time of disablement was 26, but the average age at the time the rehabilitation process was started was 36.

The occupations in which rehabilitants were placed in 1957 included nearly all types of work. The proportions employed in the major occupational groups remain similar to those in recent years—skilled and semiskilled workers, 26 percent; clerical and sales, 19 percent; service workers, 18 percent; family workers and housewives, 12 percent; professional, semiprofessional and managerial, 9 percent; agriculture, 9 percent; and unskilled, 7 percent.

ECONOMIC VALUE OF THE PROGRAM

The extent to which the public vocational rehabilitation program can improve the economic status of handicapped persons, increase the Nation's productive potential, and relieve some of the dependency upon public assistance was strikingly shown in 1957.

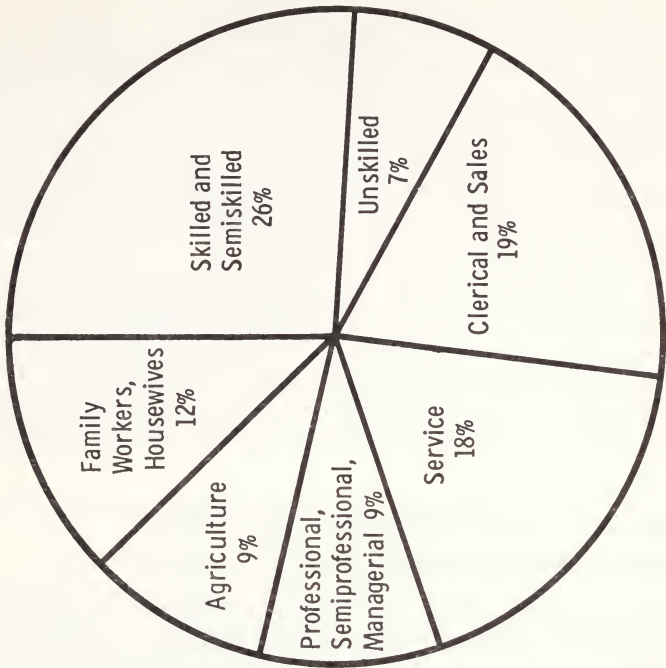
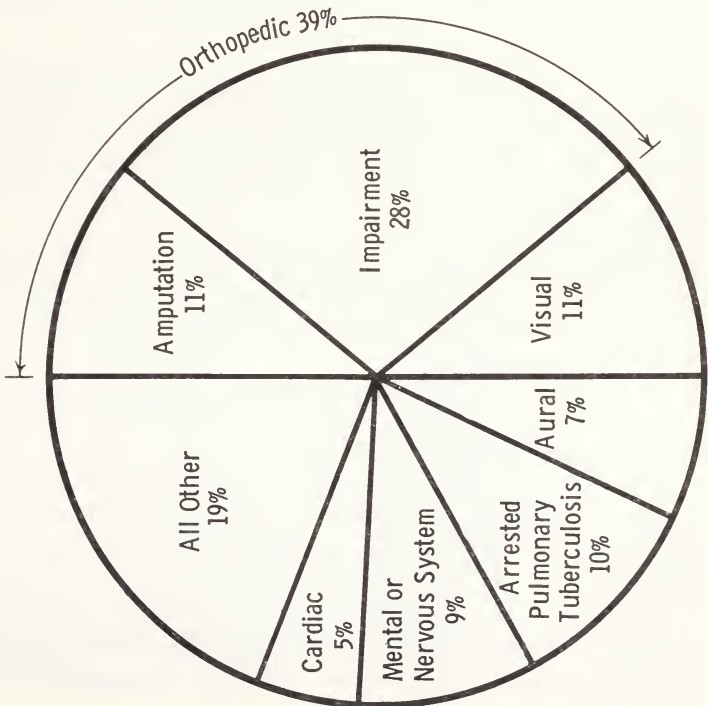
About 52,200 of the 70,940 handicapped persons prepared for and placed in employment during the fiscal year were unemployed when their rehabilitation began. The group that had been working at the

Chart 1.—DISABILITIES AND MAJOR OCCUPATIONAL GROUPS

Percent of rehabilitants, by types of disability at acceptance and by major occupational group at closure, fiscal year 1957

DISABILITIES

MAJOR OCCUPATIONS



time they were accepted for service were earning at the rate of \$20.7 million a year and generally were employed in unsafe, unsuitable, or part-time work. In the first full year of employment for the entire group, it is estimated that they will have earnings at the rate of \$141.1 million.

More than 14,000 of those who were rehabilitated received public assistance at some time during the process, at the estimated rate of \$12 million a year. The estimated total cost of the rehabilitation of these persons was about \$11 million.

It is estimated further that those who were established or placed in employment through the public rehabilitation program will pay, during the remainder of their working lives, about \$10 in Federal income taxes for every Federal dollar invested in their rehabilitation, so that the conversion of so many persons from tax consumers to taxpayers is of pronounced economic benefit to the Nation.

Research and Demonstration Projects Cover Diverse Problems of Disabled

The Federal grants that help to support the widespread research and demonstration projects are made under a section of Public Law 565 which stipulates that the projects must hold substantial promise of contributing to the solution of vocational rehabilitation problems common to several or to all of the States.

In making the grants, the Office of Vocational Rehabilitation has the counsel and advice of the National Advisory Council on Vocational Rehabilitation, which consists of 12 persons appointed by the Secretary for their outstanding interest or capabilities in rehabilitation matters. Miss Mary E. Switzer, Director of the Office of Vocational Rehabilitation, is chairman.

The Council met three times during the year, to make recommendations on 77 new and deferred applications and 43 continuation grants. All actions on grant applications were made in accordance with the Council's recommendations.

Forty-eight new projects were activated during 1957, approximately the same number as were started during the first 2 years of operation of the program under the new legislation.

The total of the new 1957 project grants was \$1,101,964. An additional sum of \$897,092 in grants for continuation of previously initiated projects was approved during the fiscal period, so that the total of Federal awards for such projects during the year was \$1,999,056.

The new projects brought the number that have been activated to a total of 95. Within that total—and especially among those that were started during fiscal 1957—there is discernible a progressively awak-

ening nationwide interest in the problems of disability and a marked increase in diversity of the fields in which research is being projected.

The range of projects presents the problems of disability from new angles. Those problems associated with rehabilitation of the mentally ill, for instance, are under wide attack. In Oregon there is a study of the effect that more closely coordinated activities among State rehabilitation agencies and those devoted to health, welfare, and operation of mental hospitals will have on the vocational rehabilitation of mental hospital patients; projects in New York and Massachusetts have under study the vocational, social, and economic adjustments of persons released from mental hospitals; in Massachusetts there is a survey of employer attitudes toward the mentally ill in relation to hiring practices; and in Vermont and California there are demonstrations of the effectiveness of "halfway houses" to help persons discharged from mental hospitals to become conditioned to employment and to the outside world.

STRIKING RESULTS IN EPILEPSY, CEREBRAL PALSY

A project in California has strikingly demonstrated that more than two-thirds of a group of adults with epilepsy were reasonably good risks for rehabilitation. Working under supervision, with necessary counseling, these workers averaged \$1.55 an hour during the demonstration period, whereas they had been unemployed before. Their average loss of time from work was only one hour for every 91 days worked, and only half of the losses were due to seizures.

Another tangible and realistic evaluation of the humanitarian and economic worth of the vocational rehabilitation program is in a study made in New York of 100 young people with cerebral palsy. After provision of adjustment services, 24 of them were sent directly to competitive jobs; 38 were sent into training for development of skills; 30 went to work in sheltered workshops; and only 8 remained for further study, so that 92 percent of this group of severely disabled are now enjoying the satisfaction of gainful employment. Furthermore, 36 of these young people, who had been earning an average of \$27 a month before receiving adjustment services, increased that average to \$109 after a brief period of work.

In New York City there is a survey among all current and former patients of a large rehabilitation center to evaluate the relationship of their attitudes toward their disabilities to social adjustments at home and at work. Another study in Oklahoma is looking into the psychological adjustments and work relationships of handicapped workers in industry and in sheltered workshops, and a pilot research project in New York City is gathering company experience in hiring the handicapped.

STUDIES ON MANY FRONTS

There is further diversity in projects, such as the one in California that has the objective of determining the extent to which a community workshop can rehabilitate hemiplegics whose employment potentiality has heretofore been considered low. Another in New York is demonstrating to employers the abilities of the handicapped to operate complex industrial machinery, and a Cleveland project is exploring the extent to which adjustment to blindness can be accelerated by raising the hearing efficiency of newly blinded persons.

There are projects to improve program administration. In Seattle there is a study of different methods of administrative organization in a rehabilitation agency office; factors relating to the selection, training, functions, and responsibilities of rehabilitation counselors are under study in Iowa, Illinois, and Arkansas; and a Florida university is demonstrating a concept of an organizational plan for a university for a comprehensive rehabilitation program.

Other projects relate to new or improved services for those with speech disorders, for young people with neuro-muscular disorders, for the blind, the deaf, and for others. In the last month of the year the Office made public announcement that in fiscal 1958 it would initiate a program of grants for selected demonstration projects to put to practical use the new knowledge gained in research and thus accelerate vocational rehabilitation services for severely disabled persons—the mentally retarded, cerebral palsied, persons with emotional problems, epileptics, the homebound disabled, the blind and visually handicapped, the chronically ill, and older disabled workers—and to provide such services in areas where they are not available as widely as necessary.

Projects under research and demonstration grant provisions were initiated in 15 States and the District of Columbia during 1955 and 1956. The 48 projects initiated in fiscal 1957 extended the geographical range of the projects to 28 States and the District of Columbia, thus approaching more closely the basic purpose of these activities—the inclusion of more abilities, talents, and resources for research in the continuing battle against disability and its causes—and massive, widespread demonstration of the results to the employers of the Nation.

Community Interest Reflected in Growth of Rehabilitation Facilities

One of the most gratifying aspects of the expanding vocational rehabilitation program is the concurrent interest of States and communities in establishing and operating localized rehabilitation

facilities, in many of which there is increasing emphasis on vocational aspects.

This increasing local interest can be attributed in considerable measure to the growing belief that services to the handicapped and disabled are most effective and successful when they can be performed in their own communities. Consequently, rapid strides are being made in all States to establish rehabilitation centers, most of which will provide comprehensive medical services. But there is also recognition of the need for vocationally oriented centers, and more and more States are operating, or have under serious contemplation, the establishment of centers which will place special emphasis on the rehabilitation problems of handicapped persons.

Among the States that have established comprehensive rehabilitation centers with heavy vocational orientation, the most widely known continues to be the Woodrow Wilson center, at Fishersville, Virginia. The State of Pennsylvania has under construction a new center of similar type, to accommodate 300 persons. West Virginia opened a smaller center of the same type during the year, and Iowa substantially expanded its center in Des Moines, which was established in 1952.

FEDERAL AID TO CONSTRUCTION

The construction of local rehabilitation centers has been stimulated greatly by the Medical Facilities Survey and Construction Act, which was passed in 1954 to amend the Hill-Burton hospital construction legislation, by including rehabilitation and other facilities.

Under this Act, the Office of Vocational Rehabilitation and the Public Health Service during fiscal 1957 jointly approved 20 projects in 17 States for construction of rehabilitation centers. Virtually all of these accent heavily the medical aspects of rehabilitation. They brought to a total of 62 the construction projects that have been approved under the new legislation. Their cost will exceed \$48 million, of which the Federal share will be approximately \$10 million, and the projects will place rehabilitation facilities in 23 States that had none before the 1954 legislation.

Of the 62 projects, 18 are in medical schools or teaching hospitals, 12 are in specialized hospitals, 10 in general hospitals, and 22 are community type centers.

FEDERAL AID TO FACILITIES

Rehabilitation centers and other facilities may be aided in their operations through Federal grants authorized by Public Law 565. During 1957, the Office made a total of 94 such grants to specialized facilities, usually for the purpose of strengthening their activities with new equipment or additional staff.

The sum of \$1,225,046 in Federal funds was allotted to these projects, matched by expenditures of at least half as much in State or local funds, making a total of more than \$1,837,569 for these purposes.

NEW AIDS FOR CENTER PLANNING

The resurgent interest in construction of rehabilitation centers brought an insistent demand for a consensus of current thought on the planning and operation of centers.

In cooperation with the Office, the Conference on Rehabilitation Centers conducted a week-long Institute on Rehabilitation Center Planning in February. Out of the Institute there came 30 papers prepared by persons qualified by ability and experience to explain current trends in all phases of rehabilitation center operations.

Efforts were made during the year to make sharper definitions of the needs of State rehabilitation agencies for services that can be provided by rehabilitation centers. Studies have been made of the working relationships among State agencies and rehabilitation centers for the purpose of increasing utilization. A study made in cooperation with the States' Vocational Rehabilitation Council pointed up the sharp need for more vocationally oriented centers to complement the medically oriented centers now in operation or under construction, as well as the need for increased services in the psychological and social aspects of the program.

The increasing number of rehabilitation centers under many auspices has given rise to increasing demands among professional groups in the field, by insurance companies, State agencies, and other public groups for increased recognition through some form of accreditation.

Qualified staff for rehabilitation centers remains in very short supply, though it is being remedied somewhat by training grants under Public Law 565. During the year a second training course for rehabilitation center administrators was completed, making a total of 19 persons who have received intensive training for this work.

SHELTERED WORKSHOPS

A considerable expansion of community interest in rehabilitation is reflected in growing recognition that sheltered workshops are a basic part of the vocational rehabilitation program. Their services are essential to the rehabilitation of many severely disabled persons, as an interim step for those who cannot be absorbed readily in the labor market, or during such times as suitable competitive work opportunities are not available.

The dearth of sheltered workshops that has existed for many years is being alleviated by the actions of many State rehabilitation

agencies in putting more of their resources into expansion of space, facilities, and content of workshop programs.

In 1957, the sum of \$465,746 was awarded in Federal expansion grant funds for 77 workshop projects in 35 States. In addition, 10 States used a total of \$231,469 in basic support funds for 24 workshop projects, including 10 for the blind; and 9 States were awarded a total of \$114,741 in extension and improvement grants for 12 workshop projects, including 4 for the blind.

A deeper understanding of the functions and place of sheltered workshops in the vocational rehabilitation program, and of the services they offer, was provided during the year by issuance of a book of 15 chapters, each prepared by an authority in the field, and edited by the Office of Vocational Rehabilitation. The book is obtainable from the Government Printing Office under the title "Workshops for the Disabled—A Vocational Rehabilitation Resource."

During the year, the ground was laid for a resurgence of interest in the sheltered workshop field, through expansion of activities of the National Association of Sheltered Workshops and Homebound Programs. An intensive membership program is proposed, under revised standards, and a plan for an Institute on workshops was formulated, in which the Office will participate.

Program of Training Is Augmenting Supply of Professional Personnel

The program of grants for the expansion and improvement of the professional preparation of personnel in all fields concerned with rehabilitation of the disabled continued its progress in 1957.

With the long-range objective of assuring a supply of trained, highly qualified personnel for the expanding State vocational rehabilitation agencies, rehabilitation centers, workshops offering sheltered employment situations, hospitals, and other agencies operating rehabilitation programs, about 200 grants were made to educational institutions, totaling slightly over \$3 million. Nearly 90 percent of the total appropriated for training is granted for long-term training; the rest was for short-term training.

Grants were made to 112 colleges and universities to assist them in expanding or strengthening their instructional resources in the fields of medicine, nursing, occupational therapy, physical therapy, social work, rehabilitation counseling, prosthetics education, and other fields closely concerned with rehabilitation. Traineeship grants were made to educational institutions for scholarship assistance to about 650 full-time students engaged in obtaining basic or advanced professional training in the fields in which serious personnel shortages exist.

During the year 10 medical schools received grants for training projects directed toward the teaching of rehabilitation principles and practices to graduate and undergraduate medical students, an effort which holds promise of materially affecting medical practice of the future in terms of preventing and treating disabling conditions and improving patient care. In addition, 101 physicians received stipends to permit them to undertake residency training in the medical specialty of physical medicine and rehabilitation in 25 teaching hospitals.

To meet urgent needs for trained vocational rehabilitation counselors for the State agencies and developing rehabilitation centers and workshops, 30 colleges and universities have established graduate curricula with OVR financial assistance, and traineeships have been awarded to more than 350 rehabilitation counseling students. In view of the fact that OVR trainees constitute only 60 percent of the total enrollment of these curricula, additional graduates can be expected to be available for employment.

In an attempt to make a partial appraisal of the effects of grants for rehabilitation counselor training programs, a followup study of those who had received traineeships in 1955 and 1956 was conducted early in the year, with the specific purpose of ascertaining the extent to which graduates had secured employment in rehabilitation agencies. Included in the questionnaire group were 92 trainees, of whom 88 percent responded. Reports indicated that 89 percent of the trainees who had completed the training program and had not left the labor market were employed, 72 percent of them working in State vocational rehabilitation agencies or in other rehabilitation programs.

In addition to support of long-term training, OVR helped to finance over 80 short-term courses on various aspects of rehabilitation, which are designed to improve the knowledge and skills of personnel already engaged in rehabilitation services. These courses reached over 2,000 individuals.

A major training effort has been in the field of prosthetics education, in which a series of courses has been held at two universities for the training of physicians, occupational therapists, physical therapists, and prosthetists in the techniques of limb manufacture, fitting, and training of the amputee in the use of the prosthetic device. Such courses have reached about 600 during the year, thereby enabling them to return to their home communities better equipped to deal with problems of persons who have sustained upper extremity or above-the-knee amputations.

Still other short courses were held on techniques of work simplification for disabled homemakers, geriatric rehabilitation, and teaching of esophageal speech.

OVR's continuing interest in raising the level of State agency staff has prompted the devotion of considerable staff time and funds to con-

ducting orientation courses for newly employed counselors, seminars in administration of executive personnel, advanced courses in counseling and placement of the blind, courses on administrative and clinical problems faced by State medical consultants, and training conferences designed to improve rehabilitation of psychiatric patients. Advanced planning has been initiated for the stimulation and financing of organized, comprehensive staff development programs in State agencies.

Services to Blind Persons

Along with the general increase in the vigor of programs directed at meeting the problems of disability, there were several major aspects of progress in the provision of rehabilitation services to blind people.

The most immediately productive were the increases in the number of blind people rehabilitated to self-support and, particularly, in the area of operating vending stands. The number brought to successful rehabilitation during the year increased to 4,005 from 3,765 in 1956.

In the program of vending stand operations by blind people, the number of stands increased from 1,727 to 1,830; the number of operators from 1,804 to 1,924; gross sales from \$25,850,000 to \$28,939,000; total earnings of operators and their blind assistants from \$5,057,000 to \$5,624,000, and the average net income to operators from \$2,532 to \$2,654.

To acquaint business establishments of all kinds with the value of vending stands in their buildings, the Office issued a brochure consisting of testimonials from operators of businesses of varied types. This has been used widely in effecting the increase in the number of vending stands.

A further step to increase the number of vending stands on Federal property was taken during the year when preferential regulations for blind people in such operations were negotiated by the Departments of Agriculture and Interior and by the Government of the District of Columbia. These are in accordance with amendments of 1954 to the Randolph-Sheppard Act. The addition of the three units of government covered virtually all agencies with considerable Federal property under their control. Such regulations had been issued previously by Departments of Health, Education, and Welfare; Treasury; Defense; Commerce; and Post Office; and General Services Administration; Atomic Energy Commission; and Tennessee Valley Authority.

The State agencies also took steps to continue the increases in the number of blind people served and in improving the services. In many States new staff was added and trained. New facilities were opened and others were improved as a general characteristic of program improvement. At the same time there was considerable evidence of

greater use of facilities, of raising the standards of service, and of higher goals. To contribute to the improvement of standards in rehabilitation facilities for the blind, recommendations formulated during a seminar in which many of the Nation's outstanding experts on such facilities participated were published and made available throughout the country.

In the expansion efforts of most States, the officials of the Office of Vocational Rehabilitation provided advice and technical assistance.

A program for expansion of the use of newly developed optical aids for persons with extremely poor vision was actively launched by the OVR during the year.

In furtherance of this, the Industrial Home for the Blind (Brooklyn) cooperated with OVR in conducting three intensive training courses for State directors and their consulting ophthalmologists. Demonstrations of methods used in the few existing optical aids clinics were given to encourage establishment of such clinics in various parts of the country. At the end of the year, nine States had established or were planning establishment of the clinics.

In recent years an upward trend in the sale and use of pianos has increased employment opportunities for qualified piano tuner technicians and has pointed up an urgent need for instructors of piano tuning.

To help to meet these needs, and to raise and maintain the standards of the profession for qualified blind persons, a 6-week training course for instructors was conducted cooperatively by the Office and Roosevelt University for the third year. Eight trainees from seven States attended the 1957 course and are now employed as instructors in schools teaching piano tuning to blind persons.

Agriculture and related occupations as a source of employment for blind persons has, until recently, been undeveloped in rehabilitation programs. Many blind persons, particularly those in rural communities, have interests in and aptitude for farm work. The Division of Services to the Blind during fiscal 1957 intensified its consultative services for States that needed guidance in formulating programs for the training and establishment of blind persons in agriculture and related pursuits.

Six States received such services, which were provided with full consideration of their geographical location and the living conditions, interests, and aptitudes of the trainees.

One of the most difficult problems in the rehabilitation of blind persons is placing them in competitive employment. The usual techniques for placing handicapped persons are not always adequate or appropriate for blind persons. Consequently, special training for counselors in placement of the blind is a necessity. To meet this need,

four special courses were conducted during the fiscal year under auspices of the Division of Services to the Blind, attended by 44 counselors from 30 States and Alaska.

Mental Illness

The growing nationwide interest in the problems of mental illness was reflected in the vocational rehabilitation program during 1957 by a marked acceleration among State agencies in their staffing and operational patterns for expansion of services to the mentally ill.

An increasing number of State agencies have taken advantage of funds that are available to them under Public Law 565 for extending and improving this segment of their operations. Thirty-one States now have specialized counselors who work only in this field. Several States have instituted vocational training facilities in their mental hospitals. One State agency is operating two "half-way" houses where patients discharged from mental hospitals are given opportunity to learn a trade or to sharpen old skills, at the same time learning to live again as members of the community.

In the continuing efforts to strengthen working relationships among professional personnel working in the field of mental health, three conferences were held during the year for mental health personnel at the State level, and for staff from mental hospitals and State agencies. These workshops, cosponsored by the Office of Vocational Rehabilitation, the National Institute of Mental Health, and a university in each region, have resulted not only in stronger programs and an increased number of rehabilitations but have served to stimulate interest in initiating several research and demonstration projects in the field of mental illness. In several States the workshops were followed by short-term training conferences at State universities for the benefit of counselors who work with the mentally ill.

Staff from the Office provided a variety of consultative services to State agencies during the year and participated in State and regional conferences on the subject of mental illness and the emotional problems of the physically handicapped, as well as in several national conferences of large voluntary organizations devoted to mental health.

Program Expenditures Indicate Growth and Activity Throughout the Nation

The total of Federal expenditures for vocational rehabilitation in 1957 came to \$41,988,872.

This sum was matched by State and other public and private non-profit groups in the approximate amount of \$24 million, so that the

total expenditure in the nationwide vocational rehabilitation program amounted to approximately \$66 million.

The bulk of the Federal expenditures was in grants to States and Territories in support of their basic programs. These grants amounted to \$34,847,954, almost \$5 million more than in the previous period. The States' contribution to basic funds was \$21,227,432, about 17 per cent more than in the previous year.

The Federal expenditures included \$1,999,046 for research and demonstration projects, which was matched by an estimated \$900,000 from the States and other sources; and \$2,938,076 for training grants, which was matched by about \$1 million from sources other than Federal.

Federal grants to States for extension and improvement of their rehabilitation services amounted to \$1,206,356 during the period. This sum was matched by \$402,119 in State and other funds.

The authority in Public Law 565 for grants to States and other public and private nonprofit agencies, for planning, preparing, and activating substantial expansions of their programs was to expire on June 30, 1956, but the Congress extended this authority for one more year. Federal grants for expansion purposes totaled \$997,440 during fiscal 1957 and were matched by almost \$500,000 in State and other funds.

These expansion grants totaled 149, in 51 States, during the period. Public and private nonprofit organizations received a total of \$907,674 for 143 projects developed in cooperation with State agencies. The remaining six were State projects. Fifteen projects totaling \$120,209 were for expansion of services to the blind.

STIMULATING EMPLOYMENT FOR THE HANDICAPPED

An increasing number of large business organizations are responding to the efforts of the Office and State agencies, in cooperation with the President's Committee on Employment of the Physically Handicapped, to widen employment opportunities for the disabled.

An outstanding example of a nationwide business organization's development of a firm policy for utilizing the abilities of the handicapped is that of Sears, Roebuck and Co.

Through participation in activities of the President's Committee, company officials became interested in the State rehabilitation programs as a source of workers in many departments of their stores. Company officers made visits to several rehabilitation centers in the eastern part of the country, and, after viewing the training courses and investigating the performance records of persons who had been rehabilitated, instituted a company program for the hiring of handicapped persons in all of their installations, a program that has proved eminently satisfactory.

Another large company that has instituted a similar program is Kaiser Aluminum and Chemical Corporation, which requested consultative services from the Federal Office, the U. S. Employment Service, and the West Virginia rehabilitation and employment services during the year, for appropriate methods of finding and hiring handicapped workers for a new plant in that State.

A developing nationwide opportunity for employment of the handicapped is in a telephone answering service being prepared for operation in about a thousand communities, to be supported by merchandisers and manufacturers, to supply information about their products. It has been indicated that handicapped persons will be given preference for this employment.

The aircraft and airline industries, as a whole, continued their long-time policy of giving handicapped persons equal opportunity to compete for jobs, and during the year a number of trade associations recommended such policies to their constituent members.

NEW PROGRAMS STARTED

Each State and Territory participating in the State-Federal partnership in vocational rehabilitation is required, under Public Law 565, to have a Plan of Operation that bears the approval of the Office. Those States that have separate agencies for the blind are required to have two Plans, one for the general agency and another for the blind agency. The Plans set out the organization, major policies, and procedures that will govern the operations.

Approval of a Plan for the Virgin Islands during the year brought the total of approved plans to 89 for the vocational rehabilitation programs operating in each of the States, Alaska, Hawaii, Puerto Rico, the Virgin Islands, and the District of Columbia. Following the passage of Public Law 896, in 1956, which extended the full benefits of the Vocational Rehabilitation Act to Guam, officials of that Territory began preparatory work for establishment of a vocational rehabilitation program there.

A new Plan for vocational rehabilitation of the blind in Nevada, to be administered in the State's Department of Welfare under a 1957 law, was submitted before the close of the year.

In Massachusetts and South Carolina the vocational rehabilitation agencies which had been in the State boards of vocational education were set up as independent agencies during the year.

By the end of 1957, 44 State agencies had Plan provisions for the establishment of rehabilitation facilities, and 38 had provisions for establishment of sheltered workshops. Also by that time, State agency-managed business enterprise programs for the blind, or for all types of the severely handicapped, were authorized by Plan provisions in 44 States.

PROGRAM DEVELOPMENT

The growth of State rehabilitation programs since enactment of Public Law 565 has brought into sharp focus the needs of State agencies for expansion of their operations and staffs, in keeping with increased demands for rehabilitation services and for the executive development of administrators.

The Office, in response to this indicated need for executive training, with consultation from a Committee on Administration of the States' Vocational Rehabilitation Council, contracted during the fiscal year with Harbridge House, Inc., a private agency specializing in executive training, to develop and conduct a series of training courses for State administrators. The first seminar on administration was held in June 1957, under cosponsorship of Boston University. Four others are planned for 1958.

Several State agencies requested consultative services from the Federal Office during the year in readjusting their programs for expanded services. Such a study was undertaken in Ohio, on request of the State Board of Education. A final report to the Board presented a comprehensive appraisal of the State's rehabilitation agency and suggested steps for a more effective program. A special study of the Minnesota Division of Vocational Rehabilitation was completed in September 1956, with recommendations for strengthening its operations. Studies of the programs in New Jersey, Oregon, Kentucky, Washington, and West Virginia were made during the year, consisting primarily of consultation on specific phases of management, organization, and administration.

The Office, in cooperation with the States' Vocational Rehabilitation Council during the fiscal year, participated in a study of salaries paid to rehabilitation workers. The study was sponsored by the Bulova Watch Company Foundation, Inc., and makes available for the first time a comparison of salaries paid to people who are trained for rehabilitation work with those paid to workers in other occupations and professions.

The status of vocational rehabilitation as a State activity was elevated by several actions during the year. Massachusetts and South Carolina established independent commissions for administering their programs. The legislatures of Idaho, Utah, and Wyoming enacted self-contained rehabilitation legislation. New positions of Assistant Commissioners for rehabilitation were established in the New York and Minnesota agencies.

STATE STAFF IMPROVEMENT

The year marked a decade of the annual Guidance, Training and Placement Workshop, sponsored by the Office, for the formulation

and improvement of standards of casework performance among State supervisory and consultative personnel.

From year to year, Workshop committees gather information and develop reports on various phases of rehabilitation practice and present them to the annual Workshop meeting for discussion and recommendation.

In the 1957 Workshop, its committees, assisted by outstanding special consultants in rehabilitation, presented reports on utilization of rehabilitation facilities, counselor service, development of small business enterprises for the severely handicapped, and job-finding methods. Seventy-seven workers from 63 State agencies participated.

The 1957 Workshop gave final approval to a Handbook and Guide, which was developed for the use of rehabilitation counselors in expanding employment opportunities for the handicapped, and in techniques of job-finding.

CASH DISABILITY BENEFITS BROADEN PROGRAM

In addition to the 1954 "disability freeze" amendment to the social security law, which was designed to protect the rights of disabled workers who are covered by that law, other amendments enacted during 1956 further broadened the scope of the rehabilitation program.

One provision of the 1956 legislation became effective July 1, 1957, authorizing payment of cash benefits to disabled workers who are 50 years of age or more. Another provision, effective January 1, 1957, directed payments of cash benefits to disabled and dependent children of retired or deceased workers entitled to old-age benefits, provided the disability existed before the age of 18.

Both amendments necessitated very close working relationships with the Bureau of Old-Age and Survivors Insurance.

A basic requirement of these amendments is that persons receiving such benefits must have disablements to the extent that they cannot engage in substantial gainful employment. Under arrangements existing in 47 States or Territories during fiscal 1957, State rehabilitation agencies make determinations of disability in these applicants, to find whether they are disabled within the definition of disability as prescribed by law and to assess their capacities for rehabilitation, to the end that the maximum number may, through rehabilitation services, be returned to gainful employment.

During 1957, the State agencies made approximately 155,000 disability determinations, screened 154,000 applicants for rehabilitation potential, and accepted almost 19,000 for further consideration of rehabilitation services.

STATE-FEDERAL RELATIONSHIP

The practices of State rehabilitation agencies in placing handicapped persons continued under study during the fiscal year. The Office and the United States Employment Service initiated a series of joint studies of cooperative State agency relationships, with the aim of improving placement practices. Two such studies were conducted in 1957, one in Florida and another in Maryland, as demonstrations to encourage the adoption of improved practices in those States.

The Florida study was particularly effective, as it brought much closer relationships between the staffs of the rehabilitation and employment services. A description of the Florida study was being prepared late in the fiscal year for publication in a Fall issue of the Employment Security Review of the Department of Labor.

The sum of these experiences in placing day-to-day operations under observation and study is providing increased understanding of the placement problems of these State agencies, a knowledge which in turn will be shared by other States.

COOPERATION WITH PUBLIC ASSISTANCE

For several years there has been increasing emphasis on rehabilitation services aimed toward restoration to employment of disabled persons whose major support came from public assistance funds.

In 1957 the number of rehabilitations of those who had been dependent to some extent upon public assistance prior to their rehabilitation was 14,000. This contrasts with 11,355 in 1953. The emphasis on this phase of the nationwide program reached the point in 1957 whereby cooperative projects for the rehabilitation of recipients of public assistance were conducted among the rehabilitation and public assistance agencies of 10 States, over and above the basic and usual services offered in their rehabilitation programs. Some of the closer working relationships that have developed among State agencies through this cooperation have been of such demonstrable value as to be continued in some States' basic programs.

Under the 1956 amendments to the Social Security Act, the States have even greater opportunity to increase the number of rehabilitations within this category. They provide ways for further strengthening of cooperative relationships among State rehabilitation agencies and those concerned with public assistance, all aimed toward the helping of needy persons to achieve the greatest degree of independence.

A Committee of the States' Council on Vocational Rehabilitation studied the possibilities for cooperative services under the amendments, during the fiscal year, and, after consultation with the Office

of Vocational Rehabilitation and the Bureau of Public Assistance, made recommendations to the Council, designed to give impetus to State agency actions under the new legislation. The recommendations have been adopted.

INFORMATIONAL ACTIVITIES

As required by Public Law 565, the Office continued its dissemination of information about vocational rehabilitation, and at an accelerated pace. Numerous speeches were made by the Director and other members of the staff to a variety of audiences, and several appearances were made on television and radio programs. A number of press releases were issued reporting various accomplishments, undertakings, and events.

A variety of special reports, radio announcements, and other informational materials were issued during the fiscal year. One publication of general circulation was completely rewritten and three others were substantially revised. In addition, assistance was given on various professional publications mentioned elsewhere.

In its continuing effort to help the State rehabilitation agencies establish and maintain sound public information programs, the staff of the Division of Publications and Reports conducted one tri-regional and three bi-regional public information institutes for State staffs. Sixty-one employees from 45 agencies in 34 States participated in the institutes, which were held in New Orleans, Salt Lake City, Chicago, and Washington.

In each of the institutes, considerable emphasis was placed upon the joint informational responsibilities inherent in new provisions of the Social Security Act, involving cash disability and disability "freeze" determinations of rehabilitation potentialities of applicants for benefits under the old-age and survivors insurance program. Consequently, personnel from that Bureau participated as part of the faculty.

Additional faculty work was done by various State informational representatives and by personnel from the Veterans Administration, the President's Committee on Employment of the Physically Handicapped, and the National Rehabilitation Association, though the bulk of the teaching load was carried by Office staff.

INTERNATIONAL ACTIVITIES

A reflection of the worldwide interest in the vocational rehabilitation program of the United States is in the increasing number of trainees and visitors from other countries for whom the Office plans and supervises training in rehabilitation activities.

During 1957 more than 160 persons—50 percent more than during the previous fiscal period—came from 50 countries for long-term

training or short-term observation. The programs arranged for them were conducted with cooperation of the United Nations and its specialized agencies, the International Cooperation Administration of the Department of State, other Federal departments, educational institutions, and rehabilitation facilities.

A highlight of the year was a program planned for a team of 10 professional persons from Mexico, composed of physicians, an orthopedic surgeon, a physical therapist, and specialists in the psycho-social phases of rehabilitation. Their program emphasized the "team" approach to rehabilitation of the individual, relationships among public and voluntary agencies, and methods of coordinating services and resources to achieve the rehabilitation goal.

There also was evidence of increasing interest of industrialists, engineers, and other professional persons from foreign countries, in the problems of the disabled and in methods of rehabilitating them.

In the interests of worldwide rehabilitation, the United Nations and nongovernmental affiliates aided or sponsored rehabilitation facilities or demonstration projects in 17 countries, designed to spread further the available knowledge that is helping the disabled to health and independence. The United Nations also devoted the second issue of its "International Social Service Review" to rehabilitation activities throughout the world.

Recruitment activities were carried on to find rehabilitation specialists and workers in related fields for service in Brazil, Indonesia, Mexico, and France.

Through its membership on the Interdepartmental Committee on International Social Policy, the Office was active during the year in support of the meeting of the Social Commission of the Economic and Social Council under the United Nations.

Table 1.—Number of referrals and cases, by agency, fiscal year 1957

| Agency ¹ | Referrals | | | | Cases | | | | |
|-------------------------------|--------------------|---------------------------------------|--|---|---|-------------------------|---|--|---|
| | During fiscal year | | | Re- main- ing at end of year ³ | During fiscal year | | | | Re- main- ing at end of year ⁶ |
| | Total | Ac- cepted for serv- ices | Not ac- cepted for serv- ices ² | | Total active load (re- ceiv- ing serv- ices) | Closed from active load | | | |
| | | | | | | Reha- bili- tated | After rehabili- tation plan initi- ated ⁴ | Before rehabili- tation plan initi- ated ⁵ | |
| United States, total ----- | 320, 025 | 104, 125 | 101, 656 | 114, 244 | 238, 592 | 70, 940 | 7, 230 | 15, 833 | 144, 589 |
| Alabama ----- | 7, 734 | 2, 983 | 920 | 3, 831 | 7, 447 | 2, 070 | 181 | 262 | 4, 934 |
| Alaska ----- | 613 | 125 | 69 | 419 | 270 | 81 | 7 | 3 | 179 |
| Arizona: | | | | | | | | | |
| General ----- | 1, 909 | 647 | 587 | 675 | 1, 195 | 413 | 45 | 45 | 692 |
| Blind ----- | 113 | 44 | 41 | 28 | 118 | 26 | 14 | 5 | 73 |
| Arkansas ----- | 5, 134 | 1, 864 | 2, 044 | 1, 226 | 3, 765 | 1, 501 | 120 | 129 | 2, 015 |
| California ----- | 19, 060 | 3, 787 | 10, 252 | 5, 021 | 8, 706 | 1, 567 | 507 | 1, 078 | 5, 554 |
| Colorado: | | | | | | | | | |
| General ----- | 2, 498 | 1, 103 | 647 | 748 | 2, 007 | 653 | 181 | 84 | 1, 089 |
| Blind ----- | 229 | 66 | 16 | 147 | 165 | 43 | 1 | 3 | 118 |
| Connecticut: | | | | | | | | | |
| General ----- | 2, 769 | 1, 560 | 586 | 623 | 3, 756 | 966 | 287 | 167 | 2, 336 |
| Blind ----- | 192 | 63 | 94 | 35 | 158 | 50 | 18 | 1 | 89 |
| Delaware: | | | | | | | | | |
| General ----- | 1, 297 | 612 | 487 | 198 | 1, 213 | 485 | 7 | 52 | 669 |
| Blind ----- | 53 | 30 | 16 | 7 | 57 | 17 | 9 | 2 | 29 |
| District of Columbia ----- | 2, 681 | 656 | 1, 581 | 444 | 1, 506 | 340 | 156 | 159 | 851 |
| Florida: | | | | | | | | | |
| General ----- | 8, 495 | 2, 800 | 2, 977 | 2, 718 | 6, 188 | 1, 854 | 251 | 517 | 3, 566 |
| Blind ----- | 3, 199 | 377 | 1, 623 | 1, 199 | 852 | 260 | 42 | 22 | 528 |
| Georgia ----- | 19, 355 | 6, 296 | 5, 231 | 7, 828 | 11, 875 | 5, 326 | 258 | 713 | 5, 578 |
| Hawaii: | | | | | | | | | |
| General ----- | 1, 011 | 270 | 526 | 215 | 610 | 202 | 41 | 11 | 356 |
| Blind ----- | 35 | 15 | 11 | 9 | 77 | 13 | 3 | 2 | 59 |
| Idaho: | | | | | | | | | |
| General ----- | 1, 538 | 275 | 630 | 633 | 599 | 165 | 24 | 14 | 396 |
| Blind ----- | 31 | 12 | 2 | 17 | 34 | 8 | 4 | 0 | 22 |
| Illinois ----- | 15, 478 | 6, 557 | 4, 678 | 4, 243 | 13, 549 | 4, 207 | 320 | 1, 615 | 7, 407 |
| Indiana: | | | | | | | | | |
| General ----- | 2, 600 | 1, 445 | 524 | 631 | 4, 111 | 1, 138 | 88 | 349 | 2, 536 |
| Blind ----- | 238 | 88 | 85 | 65 | 255 | 43 | 14 | 35 | 163 |
| Iowa: | | | | | | | | | |
| General ----- | 5, 372 | 1, 584 | 1, 438 | 2, 350 | 3, 710 | 1, 065 | 122 | 200 | 2, 323 |
| Blind ----- | 194 | 48 | 75 | 71 | 97 | 12 | 0 | 0 | 85 |
| Kansas: | | | | | | | | | |
| General ----- | 3, 234 | 855 | 824 | 1, 555 | 2, 093 | 576 | 60 | 118 | 1, 339 |
| Blind ----- | 323 | 78 | 65 | 180 | 190 | 49 | 10 | 2 | 129 |
| Kentucky ----- | 6, 006 | 1, 543 | 2, 557 | 1, 906 | 3, 127 | 871 | 64 | 380 | 1, 812 |
| Louisiana: | | | | | | | | | |
| General ----- | 4, 734 | 2, 480 | 1, 110 | 1, 144 | 6, 157 | 1, 602 | 87 | 349 | 4, 119 |
| Blind ----- | 663 | 153 | 142 | 368 | 543 | 110 | 12 | 19 | 402 |
| Maine: | | | | | | | | | |
| General ----- | 2, 615 | 454 | 1, 106 | 1, 055 | 1, 137 | 228 | 25 | 100 | 784 |
| Blind ----- | 163 | 29 | 69 | 65 | 86 | 19 | 7 | 1 | 59 |
| Maryland ----- | 4, 666 | 1, 813 | 1, 153 | 1, 700 | 4, 633 | 1, 218 | 142 | 440 | 2, 833 |
| Massachusetts: | | | | | | | | | |
| General ----- | 4, 149 | 1, 654 | 1, 082 | 1, 413 | 3, 401 | 965 | 76 | 184 | 2, 176 |
| Blind ----- | 327 | 126 | 35 | 166 | 327 | 62 | 5 | 12 | 248 |
| Michigan: | | | | | | | | | |
| General ----- | 9, 850 | 4, 145 | 2, 017 | 3, 688 | 9, 221 | 3, 255 | 384 | 125 | 5, 457 |
| Blind ----- | 336 | 169 | 84 | 83 | 402 | 100 | 41 | 42 | 219 |
| Minnesota: | | | | | | | | | |
| General ----- | 6, 031 | 1, 522 | 1, 929 | 2, 580 | 4, 388 | 967 | 141 | 119 | 3, 161 |
| Blind ----- | 688 | 140 | 277 | 271 | 381 | 78 | 13 | 20 | 270 |
| Mississippi: | | | | | | | | | |
| General ----- | 2, 834 | 1, 099 | 934 | 801 | 2, 750 | 912 | 58 | 250 | 1, 530 |
| Blind ----- | 841 | 343 | 357 | 141 | 905 | 272 | 42 | 33 | 558 |
| Missouri: | | | | | | | | | |
| General ----- | 4, 533 | 1, 717 | 1, 203 | 1, 613 | 3, 468 | 1, 297 | 56 | 126 | 1, 989 |
| Blind ----- | 674 | 163 | 232 | 279 | 504 | 123 | 18 | 14 | 349 |
| Montana: | | | | | | | | | |
| General ----- | 1, 784 | 510 | 582 | 692 | 1, 176 | 400 | 15 | 30 | 731 |
| Blind ----- | 366 | 24 | 236 | 106 | 54 | 21 | 2 | 2 | 29 |
| Nebraska: | | | | | | | | | |
| General ----- | 1, 427 | 847 | 168 | 412 | 2, 052 | 615 | 43 | 33 | 1, 361 |
| Blind ----- | 183 | 60 | 56 | 67 | 141 | 57 | 2 | 2 | 80 |

See footnotes at end of table.

Table 1.—Number of referrals and cases, by agency, fiscal year 1957—Con.

| Agency ¹ | Referrals | | | | Cases | | | | |
|---------------------|--------------------|------------------------------------|---|---|--|-------------------------|--|---|---------|
| | During fiscal year | | | Re- main- ing at end of year ³ | During fiscal year | | | Re- main- ing at end of year ⁶ | |
| | Total | Ac- cepted for serv- ices | Not ac- cepted for serv- ices ² | | Total active load (re- ceiv- ing serv- ices) | Closed from active load | | | |
| | | | | | | Reha- bili- tated | After rehabili- tation plan initiated ⁴ | Before rehabili- tation plan initiated ⁵ | |
| Nevada..... | 519 | 75 | 329 | 115 | 189 | 54 | 13 | 4 | 118 |
| New Hampshire: | | | | | | | | | |
| General..... | 583 | 267 | 173 | 143 | 530 | 103 | 53 | 17 | 357 |
| Blind..... | 48 | 27 | 11 | 10 | 84 | 15 | 6 | 12 | 51 |
| New Jersey: | | | | | | | | | |
| General..... | 5, 159 | 1, 435 | 1, 839 | 1, 885 | 2, 992 | 781 | 146 | 317 | 1, 748 |
| Blind..... | 736 | 102 | 137 | 497 | 410 | 96 | 14 | 3 | 297 |
| New Mexico: | | | | | | | | | |
| General..... | 1, 430 | 294 | 662 | 474 | 604 | 285 | 26 | 10 | 283 |
| Blind..... | 183 | 32 | 26 | 125 | 91 | 18 | 13 | 2 | 58 |
| New York: | | | | | | | | | |
| General..... | 18, 013 | 6, 132 | 6, 681 | 5, 200 | 13, 496 | 4, 485 | 498 | 1, 220 | 7, 293 |
| Blind..... | 1, 022 | 346 | 252 | 424 | 803 | 218 | 34 | 71 | 480 |
| North Carolina: | | | | | | | | | |
| General..... | 8, 230 | 4, 207 | 2, 366 | 1, 657 | 9, 795 | 2, 930 | 218 | 452 | 6, 195 |
| Blind..... | 1, 326 | 507 | 520 | 299 | 1, 478 | 368 | 25 | 95 | 990 |
| North Dakota: | 1, 498 | 417 | 336 | 745 | 938 | 274 | 14 | 17 | 633 |
| Ohio: | | | | | | | | | |
| General..... | 5, 821 | 1, 726 | 1, 556 | 2, 539 | 3, 780 | 1, 250 | 85 | 213 | 2, 232 |
| Blind..... | 472 | 199 | 111 | 162 | 662 | 128 | 43 | 30 | 461 |
| Oklahoma..... | 5, 088 | 2, 501 | 1, 590 | 997 | 7, 038 | 1, 396 | 101 | 713 | 4, 828 |
| Oregon: | | | | | | | | | |
| General..... | 5, 538 | 1, 044 | 1, 905 | 2, 589 | 2, 718 | 650 | 97 | 314 | 1, 657 |
| Blind..... | 171 | 54 | 54 | 63 | 155 | 43 | 2 | 3 | 107 |
| Pennsylvania: | | | | | | | | | |
| General..... | 25, 360 | 9, 869 | 7, 412 | 8, 079 | 18, 999 | 5, 794 | 706 | 1, 173 | 11, 326 |
| Blind..... | 5, 235 | 339 | 2, 943 | 1, 953 | 1, 079 | 230 | 76 | 143 | 630 |
| Puerto Rico..... | 6, 553 | 1, 470 | 1, 108 | 3, 975 | 3, 357 | 868 | 53 | 193 | 2, 243 |
| Rhode Island: | | | | | | | | | |
| General..... | 1, 756 | 802 | 354 | 600 | 1, 253 | 436 | 36 | 14 | 767 |
| Blind..... | 44 | 41 | 0 | 3 | 188 | 28 | 3 | 6 | 151 |
| South Carolina: | | | | | | | | | |
| General..... | 6, 233 | 1, 936 | 1, 413 | 2, 884 | 4, 822 | 1, 529 | 66 | 222 | 3, 005 |
| Blind..... | 389 | 157 | 151 | 81 | 284 | 94 | 7 | 25 | 158 |
| South Dakota: | | | | | | | | | |
| General..... | 892 | 200 | 169 | 523 | 825 | 171 | 4 | 37 | 613 |
| Blind..... | 194 | 30 | 84 | 80 | 67 | 17 | 1 | 0 | 49 |
| Tennessee: | | | | | | | | | |
| General..... | 6, 252 | 2, 476 | 1, 487 | 2, 289 | 4, 994 | 2, 028 | 129 | 208 | 2, 629 |
| Blind..... | 1, 011 | 257 | 184 | 570 | 680 | 171 | 12 | 14 | 483 |
| Texas: | | | | | | | | | |
| General..... | 10, 401 | 2, 678 | 2, 543 | 5, 180 | 8, 947 | 2, 106 | 101 | 511 | 6, 229 |
| Blind..... | 1, 099 | 371 | 488 | 240 | 810 | 334 | 19 | 21 | 436 |
| Utah..... | 1, 165 | 466 | 233 | 466 | 1, 197 | 347 | 35 | 15 | 800 |
| Vermont: | | | | | | | | | |
| General..... | 1, 009 | 269 | 244 | 496 | 662 | 171 | 29 | 45 | 417 |
| Blind..... | 60 | 30 | 20 | 10 | 70 | 19 | 4 | 7 | 40 |
| Virginia: | | | | | | | | | |
| General..... | 12, 793 | 3, 510 | 5, 307 | 3, 976 | 7, 369 | 2, 271 | 109 | 797 | 4, 192 |
| Blind..... | 539 | 138 | 191 | 210 | 258 | 80 | 18 | 10 | 150 |
| Virgin Islands..... | 37 | 3 | 0 | 34 | 3 | 0 | 0 | 0 | 3 |
| Washington: | | | | | | | | | |
| General..... | 4, 827 | 1, 397 | 1, 849 | 1, 581 | 3, 538 | 1, 007 | 145 | 259 | 2, 127 |
| Blind..... | 215 | 70 | 86 | 59 | 163 | 37 | 9 | 13 | 104 |
| West Virginia..... | 12, 879 | 3, 061 | 3, 274 | 6, 544 | 8, 335 | 2, 171 | 71 | 663 | 5, 430 |
| Wisconsin: | | | | | | | | | |
| General..... | 5, 567 | 1, 690 | 1, 612 | 2, 265 | 4, 796 | 1, 377 | 173 | 76 | 3, 170 |
| Blind..... | 158 | 67 | 43 | 48 | 178 | 57 | 9 | 6 | 106 |
| Wyoming..... | 1, 265 | 202 | 555 | 508 | 499 | 201 | 24 | 13 | 261 |

¹ In States with 2 agencies, the State division of vocational rehabilitation is designated as "general," and the agency under the State commission or other agency for the blind is designated as "blind."

² Services declined, services not needed, individual not eligible, individual needing services other than vocational rehabilitation, referred to other agencies, migratory shifting of the individual, etc.

³ Eligibility for rehabilitation not yet determined.

⁴ Closed after rehabilitation plan was initiated; received rehabilitation service but never reached the point of employment because of personal factors, illness, aggravated disability, etc.

⁵ Closed prior to initiation of rehabilitation plan because of indifference of individual, probable increase in degree of disability, loss of contact, etc.

⁶ In process of rehabilitation on June 30, 1957.

Table 2.—Vocational rehabilitation grants, 1957, State divisions of vocational rehabilitation

| State or Territory | Support grants | Extension and improvement grants | Expansion grants ¹ | Total |
|---------------------------|----------------|----------------------------------|-------------------------------|--------------|
| Total | \$30,466,162 | \$1,043,793 | \$887,220 | \$32,397,175 |
| Alabama..... | 1,271,534 | 26,885 | 20,022 | 1,318,441 |
| Arizona..... | 246,190 | 8,689 | 5,855 | 260,734 |
| Arkansas..... | 866,735 | 15,862 | 5,892 | 888,489 |
| California..... | 2,071,732 | 115,541 | 79,239 | 2,266,512 |
| Colorado..... | 213,665 | 8,091 | 16,581 | 238,337 |
| Connecticut..... | 322,827 | 15,895 | 13,390 | 352,112 |
| Delaware..... | 145,000 | 5,000 | 3,648 | 153,648 |
| Florida..... | 783,558 | 30,606 | 22,493 | 836,657 |
| Georgia..... | 1,883,882 | 32,104 | 23,528 | 1,939,514 |
| Idaho..... | 73,896 | ----- | 2,858 | 76,754 |
| Illinois..... | 1,516,896 | 36,120 | 55,420 | 1,608,436 |
| Indiana..... | 414,551 | 24,980 | 14,960 | 454,491 |
| Iowa..... | 530,257 | 21,993 | 14,850 | 567,100 |
| Kansas..... | 261,967 | 14,072 | 9,842 | 285,881 |
| Kentucky..... | 358,306 | 26,642 | 13,376 | 398,324 |
| Louisiana..... | 900,537 | ----- | 12,000 | 912,537 |
| Maine..... | 181,748 | 8,024 | 3,964 | 193,736 |
| Maryland..... | 389,062 | ----- | 17,025 | 406,087 |
| Massachusetts..... | 532,013 | 43,872 | 33,399 | 609,284 |
| Michigan..... | 1,124,720 | 64,155 | 55,362 | 1,244,237 |
| Minnesota..... | 641,854 | 22,428 | 3,200 | 667,482 |
| Mississippi..... | 342,245 | ----- | 10,085 | 352,330 |
| Missouri..... | 529,522 | 18,563 | 23,255 | 571,340 |
| Montana..... | 143,922 | 5,612 | ----- | 149,534 |
| Nebraska..... | 173,073 | 7,275 | 12,598 | 192,946 |
| Nevada..... | 30,603 | 5,000 | ----- | 35,603 |
| New Hampshire..... | 64,779 | 5,000 | 4,200 | 73,979 |
| New Jersey..... | 683,102 | 15,700 | 25,863 | 724,665 |
| New Mexico..... | 132,822 | 2,925 | 16,519 | 152,266 |
| New York..... | 1,945,851 | 89,272 | 36,270 | 2,071,393 |
| North Carolina..... | 896,509 | 37,991 | 25,117 | 959,617 |
| North Dakota..... | 224,696 | 2,630 | ----- | 227,326 |
| Ohio..... | 494,820 | 27,523 | 24,981 | 547,324 |
| Oklahoma..... | 707,599 | 17,322 | 5,427 | 730,348 |
| Oregon..... | 374,292 | 11,877 | 9,974 | 396,143 |
| Pennsylvania..... | 2,419,991 | 68,550 | 87,152 | 2,575,693 |
| Rhode Island..... | 193,595 | 7,492 | 5,049 | 206,136 |
| South Carolina..... | 587,891 | 12,000 | 9,100 | 608,991 |
| South Dakota..... | 112,700 | 4,800 | 3,260 | 120,760 |
| Tennessee..... | 667,782 | 21,000 | 18,560 | 707,342 |
| Texas..... | 819,364 | 46,701 | 45,021 | 911,086 |
| Utah..... | 200,538 | 6,925 | 3,731 | 211,194 |
| Vermont..... | 132,576 | 5,000 | ----- | 137,576 |
| Virginia..... | 948,201 | 31,731 | 26,922 | 1,006,854 |
| Washington..... | 500,371 | ----- | 15,315 | 515,686 |
| West Virginia..... | 768,014 | 17,750 | 9,515 | 795,279 |
| Wisconsin..... | 700,206 | 29,320 | 22,071 | 751,597 |
| Wyoming..... | 93,824 | ----- | ----- | 93,824 |
| Alaska..... | 101,938 | 5,000 | 1,000 | 107,938 |
| Hawaii..... | 150,635 | 3,000 | 1,721 | 155,356 |
| Puerto Rico..... | 344,465 | 16,875 | 10,740 | 372,080 |
| Virgin Islands..... | 6,682 | ----- | ----- | 6,682 |
| District of Columbia..... | 242,624 | ----- | 6,870 | 249,494 |

¹ Includes grants to nonprofit agencies for projects developed in cooperation with State divisions of vocational rehabilitation.

Table 3.—*Vocational rehabilitation grants, 1957, State commissions or agencies for the blind*

| State or Territory | Support grants | Extension and improvement grants | Expansion grants ¹ | Total |
|---------------------|----------------|----------------------------------|-------------------------------|-------------|
| Total..... | \$4,381,792 | \$162,563 | \$110,220 | \$4,654,575 |
| Arizona..... | 27,542 | — | — | 27,542 |
| Colorado..... | 70,404 | 3,433 | — | 73,897 |
| Connecticut..... | 40,564 | 3,877 | — | 44,441 |
| Delaware..... | 38,218 | — | — | 38,218 |
| Florida..... | 329,414 | — | — | 329,414 |
| Idaho..... | 11,012 | — | — | 11,012 |
| Indiana..... | 54,875 | 1,500 | — | 56,375 |
| Iowa..... | 22,615 | 1,875 | — | 24,490 |
| Kansas..... | 92,866 | 4,192 | — | 97,058 |
| Louisiana..... | 117,185 | — | — | 117,185 |
| Maine..... | 45,444 | — | — | 45,444 |
| Massachusetts..... | 89,195 | 600 | — | 89,795 |
| Michigan..... | 110,925 | — | — | 110,925 |
| Minnesota..... | 163,663 | — | 15,000 | 178,663 |
| Mississippi..... | 220,527 | — | — | 220,527 |
| Missouri..... | 197,600 | — | 6,100 | 203,700 |
| Montana..... | 29,987 | — | — | 29,987 |
| Nebraska..... | 64,068 | 4,897 | — | 68,965 |
| New Hampshire..... | 24,063 | — | — | 24,063 |
| New Jersey..... | 145,304 | — | — | 145,304 |
| New Mexico..... | 29,014 | — | 4,000 | 33,014 |
| New York..... | 327,834 | 53,683 | 42,206 | 423,723 |
| North Carolina..... | 535,672 | — | — | 535,672 |
| Ohio..... | 196,512 | 7,500 | 28,565 | 232,577 |
| Oregon..... | 47,222 | 2,920 | — | 50,142 |
| Pennsylvania..... | 560,260 | 30,385 | — | 590,645 |
| Rhode Island..... | 35,387 | — | — | 35,387 |
| South Carolina..... | 45,219 | — | — | 45,219 |
| South Dakota..... | 33,020 | 1,200 | — | 34,220 |
| Tennessee..... | 201,530 | — | 3,265 | 205,095 |
| Texas..... | 213,689 | 23,250 | 10,600 | 247,539 |
| Vermont..... | 27,787 | — | — | 27,787 |
| Virginia..... | 61,462 | — | — | 61,462 |
| Washington..... | 74,006 | 17,820 | — | 91,826 |
| Wisconsin..... | 69,484 | 3,431 | — | 72,915 |
| Hawaii..... | 27,863 | 2,000 | 484 | 30,347 |

¹ Includes grants to nonprofit agencies for projects developed in cooperation with State commissions or agencies for the blind.

Saint Elizabeths Hospital

IN THE PAST YEAR many improvements have been made in the treatment of patients as well as in the areas of education and research. That this has occurred in the face of continuing problems of shortage of staff and overcrowding of patients is a tribute to every employee in the hospital. Only through dedicated purpose and a confident belief in the integrity of the hospital administration and its function could such a magnificent job have been done by the overworked staff—both administrative and medical.

In the area of physical facilities there have also been many changes—all of which have had to be programmed and planned by the staff as a part of their daily responsibilities. As our physical plant is composed of buildings up to one hundred years old, the problems of continuing maintenance are very complex and time consuming as well as expensive.

In the hospital treatment program, continued interest has centered in the further development of ataractic (tranquilizing) drug therapy and in the use of the “climate” of the hospital as a treatment tool with special interest in more permissive attitudes on the part of all supervisory personnel. All of these have been stimulating changes, and the vim and vigor thus developed has resulted in increased morale of staff and improved treatment of patients.

The development of new drugs—both ataractic and stimulating—goes on apace. At the close of the year more than 2,000 patients in the hospital were under treatment by ataractic drugs.

As a part of the problem of overcrowding of patients, hospital operation is much complicated by the continuing increase in the average age of our patients. Aging produces a need for more and more nursing services as patients become more feeble and debilitated.

A self-evaluation study of the hospital operation unit by unit,

done with care, indicates that more than a 50-percent increase in staff is needed to enable us to give adequate treatment to patients, provide modern psychiatric hospital education to trainees, and carry on a small amount of good research. The budget request for only a 10-percent increase was not approved by Congress last year.

The hospital continues to have many visitors representing psychiatry and allied disciplines from many foreign countries as well as from America.

An extensive program in education in psychiatry and the related disciplines was carried out during the year. Training was continued in psychiatry, psychology, social work, medicine, surgery, pathology, occupational therapy, nursing, and clinical pastoral work. Students from the three local medical schools received a part of their clinical training in psychiatry at the hospital. Inservice training was also carried out in many areas.

Research was of necessity limited by shortage of staff and what research was completed was largely clinical in nature.

The hospital operation received a severe blow with the death on May 4 of the First Assistant Physician, Dr. Jay L. Hoffman. His untimely death leaves a void which is difficult to fill.

Division of Medical Services

CLINICAL BRANCHES

Three clinical branches carry the responsibility for general care and treatment. A Medical and Surgical Branch takes primary responsibility for the acute medical and surgical treatment of all patients and emergency attention to employees. The hospital will miss the excellent services through retirement during the year of Dr. Watson W. Eldridge, who served for more than 30 years as the Director of this Branch.

As in previous years, the shortage of staff constituted the greatest operational problem. Second in importance was the overcrowding of patients. In addition, two other major factors enter into the staff shortage problem. The first of these is a direct result of the use of ataractic drug therapy which produced a return to reality in many long-term care patients, without improvement to the point where they could be released from the hospital. With their improved reality contacts, these patients began to seek normal diversions in activity programs, which obviously should be provided. This, together with the increased time required to give patients their new medications, results in additional shortage of nursing services.

In the second place, the average age of patients in the hospital is gradually increasing in line with increased normal age incidence in

the general population. Also, more patients in the upper age groups are being admitted. The burden of these increased nursing service demands has required a reduction in nursing service for the younger patient with good prognosis, and this of course tends to reduce the percentage of recoveries in this latter group. With an increase in staff to an adequate level there would seem to be little doubt that the number of discharges would also increase.

New admissions showed an increase over the previous year of 288 patients—1,327 to 1,615. Readmissions constituted 25 percent of this total and is considered average. One thousand fourteen patients were discharged during the year—130 more than the previous year.

A policy of increasing permissiveness resulted in more privileges being given to patients. At the end of the year 278 patients enjoyed city privileges, 428 were on visit, and approximately 1,800 patients enjoyed privileges of the hospital grounds. Several buildings were changed from locked to open-type units during the year. An overall reduction in accidents and injuries was noted. No prefrontal lobotomies were performed during the year, very few patients were treated with electro-shock therapy, and one patient committed suicide.

An interesting therapeutic development was the organization of patient ward committees and an overall patients' congress which permitted greater participation in the operation of the hospital by patients than ever before. Patients received this change with great enthusiasm and cooperative understanding.

The pressure for additional maximum security type facilities increased during the year. This situation will not be entirely corrected until the completion of the new security building now under construction and approximately 25 percent completed.

All forms of therapy are used in the hospital which give hope of improvement for the patients. Continuing emphasis is placed on group therapy methods, particularly in view of staff shortages. New approaches to rehabilitation of more patients through cooperative efforts with the local departments of rehabilitation, welfare, and health are under consideration for the coming year.

PSYCHOTHERAPY BRANCH

Here the services to the patients include individual psychotherapy, group psychotherapy, psychodrama, dance therapy and art therapy. Art therapy was carried out through the services of volunteers, which is a rather unique and unusual arrangement.

PSYCHOLOGY BRANCH

In April 1957 the Psychology Branch celebrated 50 years of psychological services at the hospital. An interesting scientific program was presented in addition to an exhibit of psychological apparatus used in 1907. During the year the Psychology Branch was approved by the American Psychological Association for professional psychological training. A new psychological research laboratory was instituted during the year, and 94 patients participated in a beginning research program.

LABORATORY BRANCH

Laboratory function was improved during the year by the addition of new equipment. Staff shortages are in evidence in this Branch, and pathologists and technicians are difficult to obtain. Two hundred and ninety-six autopsies were completed, representing 60 percent of hospital deaths. This Branch will be again handicapped through the resignation in the near future of Dr. Franklin Martin, the able director.

NURSING BRANCH

Hospital staff shortages are probably felt most acutely in the Nursing Branch. This is unfortunate for it is here that the staff has a most important personal contact with the patient 24 hours of each day. The graduate nurse has assumed some of the service formerly performed by the physician, and this has meant that a nursing assistant has had to assume some of the responsibilities of the graduate nurse. Steps have been taken to improve the qualifications of the nursing assistant through inservice education and training, and this in turn has thrown more work on the Nursing Education Unit. It is unfortunate that our graduate nurses have so much of their time consumed in the giving of medicines, including the ataractic drugs, so that they have no time left to exercise and apply their skills in psychiatric nursing. This is a tragedy which can only be relieved through the addition of nursing staff to overcome present shortages.

Sixteen schools of nursing are affiliated with Saint Elizabeths Hospital in the training of student nurses, and a postgraduate course in psychiatric nursing is offered once each year to graduates of approved schools of practical nursing.

OCCUPATIONAL THERAPY

Occupational therapists continue in scarce supply, and this has resulted in some reduction in service during the year. There has also been some shift in emphasis from the administration of occupational therapy in shops to a plan which takes this therapy directly to the

patient in his own nursing unit. This serves to bring the patient into therapy more quickly than in the previous plan. Emphasis has continued to be placed on industrial therapy for the long-term care patient as well as for patients who will soon leave the hospital for jobs in the community. A successful trial was made during the year of assignment of patients to the several offices in the Department of Health, Education, and Welfare as clerks, typists, or stenographers, and this plan has been quite successful. It has served as a stepping stone to patients for rehabilitation and return to a self-supporting job.

SOCIAL SERVICE

The workload of this Branch was sharply increased during the year through the improvement of patients on ataractic drug therapy. Special attention was given to the increasing number of teen-age patients admitted to the hospital. A shortage of Social Service staff results in a lack of service to patients who are ready to leave the hospital. This is obviously poor economy.

CHAPLAIN SERVICES BRANCH

The new Saint Elizabeths Chapel fulfilled a great need and has been used to the fullest extent during the year. The many patients who have improved through ataractic drug therapy have enjoyed their return to religious participation in the chapel. Unfortunately, details of purchasing requirements have delayed the procurement of a suitable organ. Many services by the several faith groups are conducted on the various wards in the different buildings for those patients who are unable to come to the chapel.

LIBRARY BRANCH

A medical library for the use of the staff and a general library for the use of patients continued to give needed services during the year. Approximately 1,000 volumes were added to the Medical Library, bringing the total up to about 18,600.

The Patients' Circulating Library continues its very active services with one paid librarian and approximately 15 participating patients. At present there are more than 54,000 books in this library, and new accessions being received—largely through gifts—each year.

SPECIAL SERVICES

Through social activities and recreation programs, this Branch served more than 3,000 patients each week, even though the staff was limited to five individuals. Attention to patients' music needs re-

sulted in the organization of a chorus, a symphonet, a Protestant choir, and a dance band. Sports programs carried out included soft ball, volley ball, touch football, ping-pong, tennis, and gymnasium activity.

VOLUNTEER SERVICES

The total hours of contributed volunteer service increased approximately 100 percent during the year. Over 16,600 hours of volunteer service was contributed by an average of 332 persons per month. The Director is the only paid staff person in this program. Volunteer services assist materially in keeping the two-way street open between the hospital and the community.

MEDICAL RECORDS BRANCH

The Medical Records Section was reorganized during the year into a Branch and transferred to the Division of Medical Services from the Division of Administration. A qualified Medical Record Librarian was appointed as Director, and organizational studies have been carried on during the year, looking to further improvements in function. Close cooperation is maintained with the Statistical Unit, and plans are going forward for improvement in the form and content of patients' records.

Division of Administration

BUSINESS MANAGEMENT BRANCH

Special attention was directed during the year to the problems concerning improved management procedures. A statistical section was instituted which will assist in meeting long felt needs. Difficulty is still being experienced in recruitment of various types of professional staff, most of whom can secure higher salaries in non-Governmental positions. Special attention was given to the improvement of diets and the serving of food with welcome physical improvements being made in several kitchens.

MAINTENANCE AND INDUSTRIAL BRANCH

The planning and construction of new buildings as well as the continuing problems of general maintenance of hospital grounds and buildings constitutes the major assignment to this Branch. Here, too, there are acute staff shortages, and it is virtually impossible for the Branch to carry out its responsibilities with the limited staff available. Principal contract projects are the construction of the new maximum security building, the renovation and extension of street lighting, the rewiring of old buildings, the installation of coal-

handling equipment, and the extension of electrical facilities in food-serving areas.

Needs of the Hospital

In conclusion, it should be emphasized that the major need of the hospital is increased personnel, both medical and administrative. Until this is forthcoming every effort will be made to use existing personnel to the greatest advantage. The new security building now under construction will adequately meet a long-felt need. Additional space for the Medical Library and for medical records is now in the planning stage. This applies also to a new continuous treatment (CT-9) patient building with a cafeteria which would serve present buildings CT-7 and 8.

The hospital staff looks forward with eagerness to the new Clinical Research Center in the William A. White Building which will get under way during the coming year under the combined auspices of the hospital and the National Institute of Mental Health.

Table 1.—Movement of patient population, fiscal year 1957

| | Total | Male | | | Female | | |
|--|--------|--------|---------|--------|--------|---------|--------|
| | | White | Colored | Total | White | Colored | Total |
| Total number under care and treatment, fiscal year 1957..... | 8, 987 | 2, 600 | 1, 845 | 4, 445 | 2, 697 | 1, 845 | 4, 542 |
| Remaining on rolls June 30, 1956..... | 7, 372 | 2, 178 | 1, 502 | 3, 680 | 2, 169 | 1, 523 | 3, 692 |
| Admitted during year..... | 1, 615 | 422 | 343 | 765 | 528 | 322 | 850 |
| Total discharged and died..... | 1, 521 | 436 | 306 | 742 | 490 | 289 | 779 |
| Discharged..... | 1, 014 | 285 | 209 | 494 | 322 | 198 | 520 |
| Discharged as: | | | | | | | |
| Recovered..... | 114 | 28 | 32 | 60 | 31 | 23 | 54 |
| Social recovery..... | 367 | 70 | 72 | 142 | 126 | 99 | 225 |
| Improved..... | 376 | 127 | 64 | 191 | 124 | 61 | 185 |
| Unimproved..... | 101 | 32 | 24 | 56 | 36 | 9 | 45 |
| Worse..... | 0 | | | | | | |
| No mental disorder..... | 56 | 28 | 17 | 45 | 5 | 6 | 11 |
| Unknown..... | 0 | | | | | | |
| Died..... | 507 | 151 | 97 | 248 | 168 | 91 | 259 |
| Remaining on rolls, June 30, 1957..... | 7, 466 | 2, 164 | 1, 539 | 3, 703 | 2, 207 | 1, 556 | 3, 763 |
| Change in sex and color..... | 0 | +6 | +1 | +7 | +2 | -9 | -7 |
| Adjusted on rolls, June 30, 1957..... | 7, 466 | 2, 170 | 1, 540 | 3, 710 | 2, 209 | 1, 547 | 3, 756 |
| On visit and elopement..... | 463 | 95 | 62 | 157 | 172 | 134 | 306 |
| In hospital..... | 7, 003 | 2, 075 | 1, 478 | 3, 553 | 2, 037 | 1, 413 | 3, 450 |

Table 2.—Consolidated statement of movement of patients, by classification, fiscal year 1957

| | Reimbursable patients | | | | | | | | | | Nonreimbursable patients | | | | | | | | | | | | | | | | | |
|---|-----------------------|----------|--------------------------|-----------------|-----------------|----------------------|--------------------------|-------|----------|------|---------------------------------------|---|--------------------------|-----------------|------------|-------------|--------------------|----------------------|-----------------|-----------------|--------------|------|-----------------|--|--------------------|-----------------|-----------------------------|----------------|
| | Total | Subtotal | Bureau of Indian Affairs | D. C. residents | D. C. voluntary | U. S. Soldiers' Home | Veterans' Administration | Other | Subtotal | Army | Bureau of Employees Com- pensation | Immigration and Naturali- zation Service | Bureau of National Homes | Canadian Insane | Canal Zone | Coast Guard | D. C. nonresidents | Federal reservations | Foreign Service | Interned aliens | Marine Corps | Navy | D. C. prisoners | D. C. prisoners (sex psycho- paths) | Military prisoners | U. S. prisoners | U. S. Public Health Service | Virgin Islands |
| On rolls, June 30, 1956..... | 7,372 | 5,986 | 69 | 5,376 | 108 | 47 | 385 | 1 | 1,386 | 238 | 1 | 2 | 3 | 56 | 16 | 16 | 224 | 10 | 6 | 4 | 21 | 93 | 328 | 22 | 28 | 122 | 47 | 149 |
| Admitted to June 30, 1957..... | 1,615 | 1,388 | 1 | 1,162 | 179 | 33 | 12 | 1 | 227 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 41 | 15 | 6 | 1 | 1 | 1 | 143 | 12 | 7 | 7 | --- | --- |
| Separated fiscal year 1957..... | 1,521 | 1,152 | 1 | 927 | 130 | 28 | 66 | --- | 369 | 12 | 1 | --- | --- | 1 | --- | 1 | 205 | 17 | 8 | --- | --- | 3 | 83 | 2 | --- | 23 | 6 | 7 |
| Deaths..... | 507 | 466 | 1 | 430 | 6 | 9 | 20 | --- | 41 | 10 | 0 | --- | --- | 1 | --- | 1 | 9 | 0 | 0 | --- | --- | 3 | 4 | 0 | --- | 3 | 6 | 4 |
| Discharges..... | 1,014 | 686 | 0 | 497 | 124 | 19 | 46 | --- | 328 | 2 | 1 | --- | --- | 0 | --- | 0 | 196 | 17 | 8 | --- | --- | 0 | 79 | 2 | --- | 20 | 0 | 3 |
| On rolls, June 30, 1957..... | 7,466 | 6,222 | 69 | 5,611 | 187 | 52 | 331 | 2 | 1,244 | 226 | 1 | 2 | 3 | 57 | 16 | 15 | 60 | 8 | 4 | 4 | 21 | 90 | 388 | 32 | 28 | 106 | 41 | 142 |
| Changes in class..... | 0 | -189 | --- | -225 | -3 | --- | +39 | --- | +189 | --- | --- | --- | --- | --- | --- | --- | +195 | --- | +1 | --- | --- | --- | -7 | --- | --- | --- | --- | --- |
| Adjusted on rolls, June 30, 1957..... | 7,466 | 6,033 | 69 | 5,386 | 154 | 52 | 370 | 2 | 1,433 | 226 | 1 | 2 | 3 | 57 | 16 | 15 | 255 | 8 | 5 | 4 | 21 | 90 | 381 | 32 | 28 | 106 | 41 | 142 |
| On visit and elopement, June 30, 1957..... | 463 | 415 | 1 | 372 | 23 | --- | 19 | --- | 48 | --- | --- | --- | --- | --- | --- | --- | 22 | 1 | 2 | --- | --- | 3 | 15 | 5 | --- | --- | --- | --- |
| In hospital, June 30, 1957..... | 7,003 | 5,618 | 68 | 5,014 | 131 | 52 | 351 | 2 | 1,385 | 226 | 1 | 2 | 3 | 57 | 16 | 15 | 233 | 7 | 3 | 4 | 21 | 87 | 366 | 27 | 28 | 106 | 41 | 142 |
| Total treated, fiscal year 1957..... | 8,987 | 7,374 | 70 | 6,538 | 287 | 80 | 397 | 2 | 1,613 | 238 | 2 | 2 | 3 | 58 | 16 | 16 | 265 | 25 | 12 | 4 | 21 | 93 | 471 | 34 | 28 | 129 | 47 | 149 |

American Printing House for the Blind

AS THE OFFICIAL schoolbook printery for the blind in the United States, one of the principal functions of the American Printing House for the Blind, in Louisville, Kentucky, is the provision of special educational books and supplies for the blind school children throughout the country through the Federal Act "To Promote the Education of the Blind." This act, originally passed in 1879, authorizes an annual appropriation to the Printing House for this purpose. Allocations of books and materials are made on a per capita basis. Only those pupils may be registered whose vision comes within the accepted definition of blindness as follows: "Central visual acuity of 20/200 or less in the better eye with correcting glasses, or a peripheral field so contracted that the widest diameter of such field subtends an angular distance no greater than 20 degrees."

The Printing House maintains large catalogs of Braille books, Talking Books, recorded tapes, Braille music publications, large-type texts, and tangible apparatus. A rich collection of educational material is thereby provided for the kindergarten through the high school grades. A total of 6,459 blind pupils was enrolled in the residential schools for the blind and 4,724 in public schools—a total of 11,183 blind pupils being served by the Printing House—for the fiscal year ending June 30, 1957.

During the 1957 fiscal year, Braille books, educational periodicals, and music made up approximately 56 percent of the materials required by the schools; Braille slates, Braillewriters, maps, and other mechanical devices about 19 percent; Talking Books about 4½ percent; recorded educational tapes about 2 percent; and large-type books about 17½ percent. Approximately 2 percent was used for miscellaneous items.

Gallaudet College

GALLAUDET COLLEGE is devoted to the education of deaf persons who because of their handicap would have difficulty in schools and colleges for hearing students. The college, located in Washington, D. C., is the world's only college for the deaf. It was accredited last May by the Middle States Association of Colleges and Secondary Schools. In addition to education, it conducts research into the educational problems of deafness. It consists of the Kendall School and the college proper.

KENDALL SCHOOL

Primary and secondary schooling is provided for deaf children in the Kendall School, which also serves as a laboratory school for teachers training in the college. The oral method of instruction is used for all pupils except those who make no progress under it. Enrollment last year was 75, of which 63 came from the District of Columbia.

GALLAUDET COLLEGE

The college, established in 1864 by act of Congress, offers the associate's degree after 2 years of study, and a bachelor's degree in the liberal arts and sciences. The Preparatory Department provides the senior year of high school for students who are unable to obtain it in the State schools for the deaf. The Graduate Department of Education offers a master's degree and a professional diploma in the education of the deaf to students with normal hearing, and offers a four-week training course to vocational counselors who wish to acquire a deeper understanding of deaf persons. Total enrollment in the college last year was 324 with students from 42 States, Hawaii, the District of Columbia, and 7 foreign countries.

Howard University

HOWARD UNIVERSITY, located in the District of Columbia, was chartered by act of Congress on March 2, 1867. The university offers programs of higher education on the undergraduate, graduate, and professional levels. Undergraduate students are registered in the college of liberal arts; graduate students seeking the master's and doctor of philosophy degrees are registered in the graduate school; professional students are registered in the colleges of medicine, dentistry, pharmacy, and the schools of engineering and architecture, music, social work, law, and religion. (The school of religion receives no support from Federal funds.)

The educational program of Howard University is conducted in keeping with the democratic purposes of the land-grant colleges and State universities with the low tuition fees and living costs which characterize these State institutions and with an educational program resting upon and permeated by the content and spirit of a general or liberal education. The university admits students of both sexes, from every race, creed, and national origin, but it accepts and undertakes to discharge a special responsibility for the admission and training of Negro students.

ENROLLMENT OF STUDENTS

During the school year 1956-57, the university served a total of 5,787 students as follows: 4,604 during the regular academic year and 1,183 in the summer session of 1956. The net total enrollment, excluding all duplicates was 5,020, distributed in the ten schools and colleges as follows: liberal arts, 2,297; graduate school, 490; engineering and architecture, 679; music, 290; medicine, 297; dentistry, 527; pharmacy, 140; law, 100; social work, 150; and religion, 50. This enrollment included a larger body of Negro professional students than

all other universities of public support in all the Southern States combined.

GEOGRAPHICAL DISTRIBUTION OF STUDENTS

Of a total of 4,604 students enrolled during the regular school year, 4,115 or 89.4 percent came from 40 States and the District of Columbia, while 489 students, or 10.6 percent, came from outside the continental United States including 43 foreign countries and 4 possessions of the United States.

The 4,115 students who came from the United States were distributed as follows: New England States, 81; Middle Atlantic States, 628; East North Central States, 204; West North Central, 69; South Atlantic States, 2,530; East South Central States, 297; West South Central States, 268; Mountain States, 6; and Pacific States, 32.

The 489 students from outside the continental United States came from 43 foreign countries, including 9 countries in Africa, 8 countries in Asia, 12 countries in Europe, 7 countries in Central America, 5 countries in South America, and 13 island countries in the British and Netherlands West Indies.

VETERANS

There were 821 veterans enrolled at Howard University during the school year 1956-57. These veterans were distributed among the 10 schools and colleges as follows: 363 in liberal arts, 153 in engineering and architecture, 18 in music, 46 in pharmacy, 54 in dentistry, 46 in law, 51 in medicine, 7 in religion, 15 in social work, and 68 in graduate school.

ARMY AND AIR FORCE ROTC

Army ROTC.—Two hundred and eighty-five students were enrolled in Army ROTC during the school year 1956-57, of whom 216 were in the first and second year courses.

Air Force ROTC.—A total of 287 students was enrolled in Air Force ROTC. Two hundred and forty-two of these were in the first and second year courses.

THE FACULTY

There were 528 teachers serving the university during the year 1956-57. Of this number, there were 295 full-time teachers and 233 part-time teachers. The full-time equivalent of the teaching staff was 348.6. Of this number 307 were teaching in the ranks of instructor and above as follows: 69 professors, 68 associate professors, 73 assistant professors, and 97 instructors.

From the beginning of the university's work in 1867, the Founders invited to the faculties of the university learned and able men and

women, on the basis of their ability and character as individuals and without discrimination as to sex, race, creed, color, or national origin. It was a major purpose of the Founders to employ Negro teachers, among others, on every faculty. Today the Negro members of the professional faculties of Howard University constitute together a group of professional teachers larger by far than all the Negroes so employed in all other American universities combined. The existence of this group of Negro university teachers at Howard University has been a standing inspiration to the Negro people for more than three-quarters of a century, and membership on one of these faculties has been the first employment of many of the outstanding Negroes in the public life of America. From them came the founder and operator of the first blood plasma bank in the world, the first Negro governor of an American possession, the first Negro in the Secretariat of the United Nations (Nobel Prize Winner), the first Negro member of the bench of the United States Court of Appeals, and the first Negro Cultural Attaché in the diplomatic service of the United States to a major European nation.

THE BUILDING PROGRAM

In 1956-57 the following new buildings were completed and occupied: the School of Law Building, the Biology Building, and the Administration Building. The occupancy of the Administration Building permits the university for the first time to bring together all the offices involved in university-wide administration.

Near the end of the school year 1956-57, work was completed on a new building for the preclinical branches of medicine. This structure constitutes an extension of the previously existing building provided for the College of Medicine. The old building is now being remodeled. The new building has five stories and a basement. It contains the classrooms required for teaching the preclinical branches of medicine, in addition to laboratories and the service spaces related to them. It is designed to provide for 200 preclinical medical students and 200 preclinical dental students and dental hygienists and to render service to 60 pharmacy students.

In January 1957 work was begun on a new men's dormitory. The new dormitory will provide for 304 students and is expected to be completed in time for occupancy for the opening of the fall term in 1958.

GRADUATES

During the year 1956-57, there were 560 graduates, compared with 554 graduates during the year 1955-56. These 560 graduates came from 31 States, the District of Columbia, the Virgin Islands, Puerto

Rico, and the following foreign countries: Egypt, Liberia, Nigeria, Sierra Leone, China, India, Barbados, Bermuda, Grenada, Jamaica, Trinidad, Cuba, Spanish Honduras, Albania, Germany, Latvia, Poland, Brazil, and British Guiana.

These 560 graduates were distributed among the 10 schools and colleges as follows: liberal arts, 237; engineering and architecture, 41; music, 22; graduate school, 60; social work, 28; medicine, 72; dentistry, 51; dental hygiene, 8; pharmacy, 17; law, 19; and religion, 5. The university also awarded three honorary degrees.

Since its establishment in 1867, Howard University has graduated 19,823 persons. By far the large majority of these graduates have been Negroes. Among their number is a larger body of graduates in medicine, dentistry, pharmacy, engineering, music, law, and social work than the entire output of Negro professional graduates in all universities and colleges of public support in the entire group of Southern States. These graduates are at work in 43 States and 27 foreign countries. In every population center in the United States they constitute the largest and most diversified group of trained Negro public servants related to any single institution in the world.

The largest number of graduates have entered the field of teaching, primarily in the Southern States. Two thousand eight hundred and seventy-three have entered the practice of medicine; 2,365 have entered the practice of dentistry and dental hygiene; 2,325 have entered the practice of law; 768 have entered the ministry; 824 have entered the field of pharmacy; 583 have gone into engineering and architecture; and 357 have entered the field of social work.

SERVICE IN FOREIGN COUNTRIES

In recent years, teachers from Howard University have served in Burma, Brazil, Egypt, Ethiopia, Germany, India, Israel, Iraq, Italy, British Guiana, and Japan. Fulbright scholars from the university have worked in Egypt, Ghana, Iraq, Japan, Norway, Sweden, Denmark, Italy, France, Greece, England, and India.

The responsible leaders in Government and the friends of America again and again have acknowledged their services as being of the greatest value to their country and to the cause of democracy in the world.

The most recent testimony from the Government affects work done by the Head of our Department of Architecture in British Guiana. "Dr. Mackey has made a magnificent contribution which transcends his outstanding technical competence. Dr. Mackey has established a relationship with the people of the country based on trust and mutual respect which creates an environment that is uniquely receptive to the ideas he has to convey."

Detailed Contents

THE SECRETARY'S REPORT

| | Page |
|---|------|
| HEALTH..... | 2 |
| Research..... | 3 |
| Medical Services..... | 4 |
| Services to the States..... | 5 |
| FOOD AND DRUGS..... | 7 |
| EDUCATION..... | 9 |
| OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE..... | 11 |
| PUBLIC ASSISTANCE..... | 12 |
| SERVICES FOR CHILDREN..... | 13 |
| VOCATIONAL REHABILITATION..... | 14 |
| SPECIAL PLANNING FOR THE AGED..... | 15 |
| TABLE 1.—Grants to States: Total grants under all Department of Health, Education, and Welfare programs, fiscal year 1957..... | 16 |

SOCIAL SECURITY ADMINISTRATION

| | |
|--|------------|
| SOCIAL SECURITY IN 1957..... | 17 |
| PROGRAM EMPHASIS..... | 17 |
| PROGRAM OPERATIONS..... | 18 |
| PROGRAM ADMINISTRATION IN 1957..... | 20 |
| INTERNATIONAL ACTIVITIES..... | 22 |
| OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE..... | 23 |
| WHAT THE PROGRAM IS DOING..... | 24 |
| Beneficiaries and Benefit Amounts..... | 24 |
| Disability Provisions..... | 25 |
| The Protection Provided..... | 26 |
| The Coverage of the Program..... | 27 |
| Income and Disbursements..... | 27 |
| ADMINISTERING THE PROGRAM..... | 28 |
| LEGISLATIVE DEVELOPMENTS DURING THE YEAR..... | 31 |
| Provisions of the 1957 Amendments..... | 32 |
| Combined Reporting for Social Security and Income-Tax Withholding Purposes..... | 35 |
| | 255 |

| | Page |
|--|------|
| Coordination of the TVA Retirement System With Old-Age, Survivors, and Disability Insurance..... | 36 |
| Retirement System of Federal Home Loan Banks..... | 37 |
| Simplification Study..... | 37 |
| FINANCING THE PROGRAM..... | 37 |
| Old-Age and Survivors Insurance Benefits..... | 37 |
| Disability Insurance Benefits..... | 38 |
| PUBLIC ASSISTANCE..... | 38 |
| EFFECT OF THE 1956 AMENDMENTS..... | 38 |
| TRENDS IN CASELOADS AND EXPENDITURES..... | 39 |
| Old-Age Assistance..... | 40 |
| Aid to Dependent Children..... | 40 |
| Aid to the Blind..... | 40 |
| Aid to the Permanently and Totally Disabled..... | 41 |
| General Assistance..... | 41 |
| OASI Beneficiaries Receiving Supplementary Assistance Payments..... | 41 |
| PROGRAM AND ADMINISTRATIVE DEVELOPMENTS..... | 42 |
| Improving Medical Care for Public Assistance Recipients..... | 43 |
| Strengthening Social Services for Needy People..... | 46 |
| Efforts To Increase Availability of Qualified Staff..... | 49 |
| Other Administrative Developments..... | 50 |
| Defense Welfare Services..... | 52 |
| Services for Repatriated Americans..... | 52 |
| CHILDREN'S BUREAU..... | 53 |
| SOME FACTS AND FIGURES ABOUT MOTHERS AND CHILDREN..... | 54 |
| CHILDREN WITH SPECIAL NEEDS..... | 55 |
| FEDERAL INTERDEPARTMENTAL COMMITTEE ON CHILDREN AND YOUTH..... | 56 |
| PROGRAMS OF THE BUREAU..... | 56 |
| Research in Child Life..... | 56 |
| Maternal and Child Health Services..... | 58 |
| Crippled Children's Services..... | 60 |
| Child Welfare Services..... | 63 |
| Juvenile Delinquency Services..... | 68 |
| International Cooperation..... | 69 |
| FEDERAL CREDIT UNIONS..... | 70 |
| RESEARCH AND DEVELOPMENT..... | 71 |
| TABLE 1.—Social Security Administration: Funds available and obliga- tions incurred, fiscal years 1957 and 1956..... | 72 |
| TABLE 2.—Financing social insurance under the Social Security Act: Con- tributions collected and trust fund operations, fiscal years 1955-57..... | 73 |
| TABLE 3.—Old-age, survivors, and disability insurance: Estimated number of families and beneficiaries receiving benefits and average monthly benefit in current-payment status, by family group, end of June 1957 and 1956..... | 74 |
| TABLE 4.—Old-age, survivors, and disability insurance: Selected data on benefits, employers, workers, and taxable earnings, by State, for specified periods, 1954, 1956, and 1957..... | 75 |
| TABLE 5.—Old-age, survivors, and disability insurance: Selected data on benefits, employers, workers, and taxable earnings for specified periods, 1955-57..... | 76 |

| | Page |
|---|------|
| TABLE 6.—Special types of public assistance under plans approved by the Social Security Administration: Number of recipients and average payment, June 1957, and total payments to recipients, by program and State, fiscal year 1957..... | 77 |
| TABLE 7.—Special types of public assistance under plans approved by the Social Security Administration: Federal grants to States and total expenditures and percent from Federal funds, by program and State, fiscal year 1957..... | 79 |
| TABLE 8.—Maternal and child health and welfare services: Grants to States for maternal and child health services, services for crippled children, and child welfare services under the Social Security Act, by program and State, fiscal year 1957..... | 81 |
| TABLE 9.—Federal credit unions: Number of members, amount of assets, amount of shares, and amount of loans outstanding, Dec. 31, 1935-56.. | 82 |
| TABLE 10.—Federal credit unions: Assets and liabilities, Dec. 31, 1956, and Dec. 31, 1955..... | 82 |

PUBLIC HEALTH SERVICE

| | |
|---|-----|
| HEALTH OF THE NATION..... | 83 |
| Health Record..... | 84 |
| Births, Marriages, and Divorces..... | 85 |
| Influenza..... | 85 |
| Poliomyelitis..... | 87 |
| FUNDS AND PERSONNEL..... | 88 |
| NATIONAL LIBRARY OF MEDICINE..... | 88 |
| Board of Regents..... | 89 |
| New Building..... | 89 |
| PUBLIC HEALTH METHODS..... | 90 |
| Analysis of Illness and Disability..... | 90 |
| Education for Health Professions..... | 91 |
| Studies of Health Services..... | 91 |
| Consultative Services..... | 91 |
| NATIONAL INSTITUTES OF HEALTH..... | 92 |
| CLINICAL CENTER..... | 93 |
| DIVISION OF BIOLOGICS STANDARDS..... | 94 |
| DIVISION OF RESEARCH GRANTS..... | 94 |
| CENTRAL SERVICES..... | 95 |
| INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES..... | 95 |
| Grant-Supported Research..... | 96 |
| INSTITUTE OF ARTHRITIS AND METABOLIC DISEASES..... | 97 |
| Grant-Supported Research..... | 98 |
| CANCER INSTITUTE..... | 99 |
| National Chemotherapy Program..... | 99 |
| Grant-Supported Research..... | 100 |
| Biostatistical and Field Investigation Studies..... | 100 |
| Cancer Control and Research Training..... | 101 |
| INSTITUTE OF DENTAL RESEARCH..... | 101 |
| HEART INSTITUTE..... | 103 |
| Grant-Supported Research..... | 105 |

| | Page |
|--|------|
| INSTITUTE OF MENTAL HEALTH..... | 106 |
| Psychopharmacology..... | 106 |
| Mental Health Research..... | 107 |
| Grant-Supported Research..... | 108 |
| INSTITUTE OF NEUROLOGICAL DISEASES AND BLINDNESS..... | 108 |
| Grant-Supported Research..... | 109 |
| BUREAU OF MEDICAL SERVICES..... | 110 |
| HOSPITALS AND OUTPATIENT FACILITIES..... | 110 |
| Volume of Services..... | 111 |
| Training and Clinical Investigations..... | 112 |
| Medicare..... | 113 |
| Evaluation of Hospital Care..... | 113 |
| Freedmen's Hospital..... | 114 |
| FOREIGN QUARANTINE..... | 115 |
| International Traffic Volume..... | 116 |
| Medical Examinations..... | 116 |
| Other Quarantine Activities..... | 117 |
| HEALTH SERVICES FOR INDIANS..... | 118 |
| Therapeutic Services..... | 119 |
| Preventive Health Services..... | 119 |
| Tuberculosis Control..... | 120 |
| Dental Services..... | 121 |
| Services to Mothers and Children..... | 121 |
| Training of Indians..... | 122 |
| Construction..... | 122 |
| Legislation..... | 122 |
| HEALTH FACILITIES CONSTRUCTION PROGRAM..... | 123 |
| Deficit of Hospital Beds..... | 124 |
| Research in Hospital Services..... | 124 |
| DENTAL RESOURCES..... | 124 |
| Dental Manpower..... | 125 |
| Prepaid Dental Care..... | 125 |
| NURSING RESOURCES..... | 126 |
| Research Grants and Fellowships..... | 126 |
| Traineeships..... | 126 |
| Studies of Patient Care..... | 127 |
| How Nurses Spend Their Time..... | 127 |
| Turnover of Nursing Personnel..... | 128 |
| MEDICAL SERVICES FOR FEDERAL AGENCIES..... | 128 |
| Office of Vocational Rehabilitation..... | 128 |
| Bureau of Old-Age and Survivors Insurance, Social Security Administration..... | 129 |
| Bureau of Public Assistance, Social Security Administration..... | 129 |
| Office of Education..... | 129 |
| United States Coast Guard, Treasury Department..... | 129 |
| Maritime Administration, Department of Commerce..... | 130 |
| Foreign Service, Department of State..... | 130 |
| Bureau of Prisons, Department of Justice..... | 130 |
| Bureau of Employees' Compensation, Department of Labor..... | 131 |

| | Page |
|---|------|
| BUREAU OF STATE SERVICES..... | 131 |
| DIVISION OF GENERAL HEALTH SERVICES..... | 132 |
| State Grants..... | 132 |
| Poliomyelitis Vaccine Activity..... | 132 |
| Arctic Health Research Center..... | 133 |
| Emergency Health Services..... | 133 |
| Program Development..... | 134 |
| Public Health Education..... | 134 |
| Public Health Nursing..... | 135 |
| Training..... | 135 |
| National Office of Vital Statistics..... | 135 |
| DIVISION OF SPECIAL HEALTH SERVICES..... | 136 |
| Accident Prevention..... | 136 |
| Air Pollution Medical Program..... | 137 |
| Chronic Disease Control..... | 137 |
| Heart Disease Control..... | 138 |
| Occupational Health..... | 138 |
| Radiological Health Medical Program..... | 139 |
| Tuberculosis Control..... | 140 |
| DIVISION OF SANITARY ENGINEERING SERVICES..... | 141 |
| Robert A. Taft Sanitary Engineering Center..... | 141 |
| Air Pollution Engineering..... | 141 |
| General Engineering..... | 142 |
| Milk and Food Sanitation..... | 142 |
| Radiological Health..... | 143 |
| Water Supply and Water Pollution Control..... | 143 |
| Engineering Resources..... | 144 |
| COMMUNICABLE DISEASE CENTER..... | 144 |
| Epidemic and Disaster Aid..... | 145 |
| Representative Field and Laboratory Investigations..... | 145 |
| Poliomyelitis..... | 145 |
| Respiratory Diseases..... | 145 |
| Venereal Diseases..... | 145 |
| Viral Encephalitis..... | 146 |
| Diphtheria..... | 146 |
| Rabies..... | 146 |
| Psittacosis..... | 147 |
| Typhoid Fever..... | 147 |
| Staphylococcus Diseases..... | 147 |
| Laboratory Activities..... | 147 |
| Vector Control Problems..... | 148 |
| Training..... | 148 |
| DIVISION OF DENTAL PUBLIC HEALTH..... | 148 |
| Fluoridation..... | 148 |
| Other Services..... | 149 |
| DIVISION OF INTERNATIONAL HEALTH..... | 149 |
| TABLE 1.—Statement of appropriations, authorizations, obligations, and balances, fiscal year 1957..... | 150 |
| TABLE 2.—Commissioned officers and civil service personnel as of June 30, 1957..... | 153 |
| TABLE 3.—Research grants and awards, fiscal year 1957..... | 155 |
| TABLE 4.—Payments to States, fiscal year 1957..... | 156 |

OFFICE OF EDUCATION

| | Page |
|--|------|
| INTRODUCTION..... | 159 |
| Legislation..... | 161 |
| ORGANIZATION AND ADMINISTRATION OF EDUCATION..... | 164 |
| State School Administration..... | 164 |
| Local School Administration..... | 165 |
| School Finance..... | 165 |
| Schoolhousing..... | 166 |
| SERVICES TO LOCAL SCHOOLS..... | 167 |
| Elementary Education..... | 167 |
| Secondary Education..... | 168 |
| Adult Education..... | 169 |
| Exceptional Children..... | 170 |
| Audiovisual Education..... | 171 |
| Radio-Television Services..... | 171 |
| Guidance and Student Personnel..... | 172 |
| VOCATIONAL EDUCATION..... | 172 |
| HIGHER EDUCATION..... | 175 |
| Cost of Going to College..... | 175 |
| Statewide Planning and Coordination of Higher Education..... | 176 |
| College Student Retention and Withdrawal..... | 176 |
| College and University Facilities Survey..... | 176 |
| Survey of Organized Occupational Curriculums..... | 177 |
| College Staffing Study..... | 177 |
| Institutional Financial Aid to Students..... | 177 |
| College Housing Program..... | 178 |
| Administration of Grants..... | 178 |
| INTERNATIONAL EDUCATION..... | 178 |
| Research and Studies..... | 179 |
| Far East Unit..... | 179 |
| Evaluation of Foreign Credentials..... | 180 |
| Educational Clearinghouse..... | 180 |
| International Conferences..... | 180 |
| Educational Materials Laboratory..... | 181 |
| Teacher Exchange Program..... | 181 |
| Teacher Education Program..... | 182 |
| Technical Training Program..... | 182 |
| Technical Cooperation Program..... | 182 |
| Nonprogram Visitors..... | 182 |
| RESEARCH AND STATISTICAL SERVICES..... | 183 |
| Cooperative Research..... | 183 |
| Statistical Services..... | 184 |
| New Surveys..... | 184 |
| ASSISTANCE TO SCHOOLS IN FEDERALLY AFFECTED AREAS..... | 186 |
| LIBRARY SERVICE..... | 187 |
| Public Libraries..... | 187 |

| | Page |
|--|------|
| Education for Librarianship..... | 188 |
| Public School Libraries..... | 188 |
| ADVISORY COMMITTEES..... | 188 |
| THE PRESIDENT'S COMMITTEE ON EDUCATION BEYOND THE HIGH SCHOOL..... | 189 |
| MAJOR PUBLICATIONS OFF THE PRESS IN FISCAL YEAR 1957..... | 190 |
| TABLE 1.—Enrollment in the continental United States, 1955-56 and 1956-57..... | 191 |
| TABLE 2.—Supply and demand for elementary and secondary public and nonpublic school teachers, 1956-57..... | 191 |
| TABLE 3.—Grants to States: Office of Education, fiscal year 1957..... | 192 |

FOOD AND DRUG ADMINISTRATION

| | |
|---|-----|
| FOOD, DRUG, AND COSMETIC ACT..... | 195 |
| Disaster and Defense Activities..... | 195 |
| On the Food Front..... | 196 |
| Potential Health Hazards..... | 196 |
| To Keep Food Clean..... | 197 |
| Pocketbook Protection..... | 199 |
| Seafood Inspection Service..... | 200 |
| Products of Special Dietary Significance..... | 200 |
| Drugs and Devices..... | 201 |
| Illegal Sales..... | 202 |
| Adulterated and Misbranded Drugs and Devices..... | 203 |
| New Drugs..... | 204 |
| Cosmetics and Colors..... | 205 |
| Certification Services..... | 205 |
| ENFORCEMENT OF OTHER ACTS..... | 206 |
| NEW COURT INTERPRETATIONS..... | 206 |
| CHANGES IN THE LAW AND REGULATIONS..... | 207 |
| Regulations..... | 208 |
| SCIENTIFIC INVESTIGATIONS..... | 210 |
| ENFORCEMENT STATISTICS..... | 212 |
| TABLE 1.—Actions on foods during the fiscal year 1957..... | 198 |
| TABLE 2.—Number of samples on which criminal prosecutions and seizures were based and number of court actions instituted during the fiscal year 1957..... | 213 |
| TABLE 3.—Import inspections and detentions during the fiscal year 1957..... | 213 |

OFFICE OF VOCATIONAL REHABILITATION

| | |
|--|-----|
| RESEARCH-DEMONSTRATION PROJECTS AND INCREASED COMMUNITY INTEREST ARE SHAPING REHABILITATION..... | 215 |
| Rehabilitations in 1957..... | 216 |
| Economic Value of the Program..... | 216 |
| RESEARCH AND DEMONSTRATION PROJECTS COVER DIVERSE PROBLEMS OF DISABLED..... | 218 |

| | Page |
|---|------|
| Striking Results in Epilepsy, Cerebral Palsy..... | 219 |
| Studies on Many Fronts..... | 220 |
| COMMUNITY INTEREST REFLECTED IN GROWTH OF REHABILITATION FACILITIES..... | 220 |
| Federal Aid to Construction..... | 221 |
| Federal Aid to Facilities..... | 221 |
| New Aids for Center Planning..... | 222 |
| Sheltered Workshops..... | 222 |
| PROGRAM OF TRAINING IS AUGMENTING SUPPLY OF PROFESSIONAL PER- SONNEL..... | 223 |
| SERVICES TO BLIND PERSONS..... | 225 |
| MENTAL ILLNESS..... | 227 |
| PROGRAM EXPENDITURES INDICATE GROWTH AND ACTIVITY THROUGHOUT THE NATION..... | 227 |
| Stimulating Employment for the Handicapped..... | 228 |
| New Programs Started..... | 229 |
| Program Development..... | 230 |
| State Staff Improvement..... | 230 |
| Cash Disability Benefits Broaden Program..... | 231 |
| State-Federal Relationship..... | 232 |
| Cooperation With Public Assistance..... | 232 |
| Informational Activities..... | 233 |
| International Activities..... | 233 |
| TABLE 1.—Number of referrals and cases, by agency, fiscal year 1957.... | 235 |
| TABLE 2.—Vocational rehabilitation grants, 1957, State divisions of voca- tional rehabilitation..... | 237 |
| TABLE 3.—Vocational rehabilitation grants, 1957, State commissions or agencies for the blind..... | 238 |
| CHART 1.—Disabilities and major occupational groups..... | 217 |

SAINT ELIZABETHS HOSPITAL

| | |
|--|-----|
| DIVISION OF MEDICAL SERVICES..... | 240 |
| Clinical Branches..... | 240 |
| Psychotherapy Branch..... | 241 |
| Psychology Branch..... | 242 |
| Laboratory Branch..... | 242 |
| Nursing Branch..... | 242 |
| Occupational Therapy..... | 242 |
| Social Service..... | 243 |
| Chaplain Services Branch..... | 243 |
| Library Branch..... | 243 |
| Special Services..... | 243 |
| Volunteer Services..... | 244 |
| Medical Records Branch..... | 244 |
| DIVISION OF ADMINISTRATION..... | 244 |
| Business Management Branch..... | 244 |
| Maintenance and Industrial Branch..... | 244 |

| | |
|--|------|
| | Page |
| NEEDS OF THE HOSPITAL..... | 245 |
| TABLE 1.—Movement of patient population, fiscal year 1957..... | 245 |
| TABLE 2.—Consolidated statement of movement of patients, by classifica- tion, fiscal year 1957..... | 246 |

AMERICAN PRINTING HOUSE FOR THE BLIND

| | |
|--|-----|
| Services to Schools and Classes for the Blind..... | 247 |
|--|-----|

GALLAUDET COLLEGE

| | |
|------------------------|-----|
| Kendall School..... | 249 |
| Gallaudet College..... | 249 |

HOWARD UNIVERSITY

| | |
|--|-----|
| Enrollment of Students..... | 251 |
| Geographical Distribution of Students..... | 252 |
| Veterans..... | 252 |
| Army and Air Force ROTC..... | 252 |
| The Faculty..... | 252 |
| The Building Program..... | 253 |
| Graduates..... | 253 |
| Service in Foreign Countries..... | 254 |



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U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

annual
report

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As of June 30, 1958

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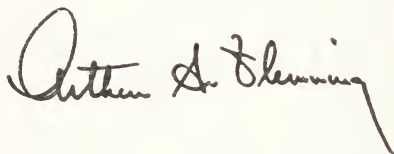
Letter of Transmittal

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,

Washington, D. C., December 1, 1958.

DEAR MR. PRESIDENT: I have the honor to submit herewith the annual report of the Department of Health, Education, and Welfare for the fiscal year ending June 30, 1958.

Respectfully,

A handwritten signature in dark ink, reading "Arthur A. Flemming". The signature is written in a cursive style with a large initial "A" and a long, sweeping underline.

Secretary.

THE PRESIDENT,

THE WHITE HOUSE,

Washington, D. C.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE Regional Boundaries and Offices



Contents

| | <i>Page</i> |
|--|-------------|
| <i>The Secretary's Report</i> | 1 |
| <i>Social Security Administration</i> | 17 |
| <i>Public Health Service</i> | 83 |
| <i>Office of Education</i> | 153 |
| <i>Food and Drug Administration</i> | 195 |
| <i>Office of Vocational Rehabilitation</i> | 215 |
| <i>Saint Elizabeths Hospital</i> | 239 |
| <i>American Printing House for the Blind</i> | 247 |
| <i>Gallaudet College</i> | 249 |
| <i>Howard University</i> | 251 |

{A detailed listing of the contents of this report, by}
 {topic headings, will be found on pages 255-262.}

The Secretary's Report

A CHANGING ATTITUDE toward problems in social welfare is increasingly making its mark on our times.

We are less and less inclined to accept as inevitable some of the age-old burdens of illness and ignorance and poverty which have limited man's lot through the centuries. There is a growing determination to uncover new hope for that which once seemed hopeless.

We have often heard it said, for example, that the poor we will always have with us. But today, more and more, we are asking: is poverty really necessary? Or at least we are asking: can't we further reduce, somewhat dramatically, the extent of poverty?

Similarly, diseases such as cancer and mental illness and heart afflictions—once considered all but insoluble—are now under vigorous attack.

This changing attitude arises in part from our increasing store of knowledge and our greater economic resources. Each new success against disease, ignorance, and poverty lifts our vision to the possibility of a further victory. We know now that much more is possible than man once would have dreamed.

The rising tempo of advances against age-old social ills also arises in part, I believe, from a heightened sense of responsibility and concern for our fellow man, a growing sense of intolerance of preventable human suffering.

And it arises in part from a clearer understanding that continued advances in national prosperity, in national security, in our quest for world peace, rest in the final analysis on the development of human resources—on the physical energies, the knowledge and intelligence, the freedom from fear of want, of the American people.

The progress we have made this past year against illness and ignorance and poverty reflects this growing determination to break new ground in social welfare.

The Department of Health, Education, and Welfare is the principal instrument of the Federal Government in this advance. But interwoven throughout this report of the Department's activities is strong evidence of another element in our national progress. This is a growing disposition on the part of the American people to adapt to our complex modern society the old-fashioned habit of cooperation.

In earlier times, among neighbors, families, towns, or movers on a westbound trail, cooperation often was something of a necessity for survival. In today's increasingly complex society, cooperation becomes more involved, but it is no less necessary and the benefits that stem from it are even more far-reaching. We have found that if our free society is to progress, Federal, State, and local governments must work more closely together, in cooperation with American industry, private colleges and universities, voluntary organizations, and individuals.

In our system of free private enterprise, as cooperation becomes more and more necessary to progress, we must never lose sight of the fact that the individual's efforts on his own behalf are still paramount. The fundamental purpose of all our cooperative action is to enlarge the opportunities of the individual to better his own lot.

Progress and Cooperation for Economic Security

Few actions ever taken by the American people have made a greater contribution to economic security of more people, over a longer period of time, than the enactment of legislation creating the social security system.

Over the years the system has become increasingly sound and strong, despite stresses of war, rapid economic changes, and an unpredicted and unprecedented growth in population. In recent years the growth of the old-age, survivors, and disability insurance program has been almost spectacular. Coverage has been broadened to include additional millions of people and now extends to nine-tenths of the work force. And the number of beneficiaries has increased almost 4 times in the past 8 years.

At the end of the fiscal year, 11.9 million people were receiving benefits at an annual rate of \$8 billion. Most of the beneficiaries (9.7 million, or 81 percent) were men and women who had reached the age of retirement. Of the remaining 2.2 million, almost 1.6 million were children, some 430,000 were mothers, and 200,000 were disabled workers aged 50 to 65.

For the fiscal year 1958 the average benefit for a retired worker and his wife was \$109.90 a month. The average for a widowed mother and two children was \$148.70.

The relationship between the social security system and the Nation's economy was emphasized anew during the middle months of the fiscal year when a downturn in business activity occurred. By April payments under social security, public assistance, unemployment insurance, workmen's compensation, veterans' pensions and compensation, railroad and government employee retirement, and temporary disability insurance, reached a new high rate of \$24 billion annually. Thus, not only were millions of people protected in the recession period but purchasing power was bolstered, and the whole economy was strengthened. Social insurance, related payments, and public assistance at the end of the year accounted for 6.6 percent of the total personal income in the United States, compared with 5.4 percent the preceding year. This jump was due largely to the increased number of old-age, survivors, and disability insurance beneficiaries and to increased unemployment insurance payments.

Under the 1956 amendments more than a half million women aged 62 to 64, and more than 200,000 disabled men and women were receiving benefits by the end of the fiscal year.

To keep abreast of public needs, 26 additional district social security offices were opened during the year in agricultural communities and in areas where industrial expansion has created new population concentrations. There are now 584 district offices.

In October 1957, an Advisory Council on Social Security Financing was appointed to review the status of the OASI Trust Fund and the recently established Disability Trust Fund, in relation to their long-term commitments. Composed of outstanding representatives of employers, employees, the self-employed, and the public, the Council will contribute knowledge and experience to assure that the social security system will continue to operate on a sound financial basis.

A group of business consultants, appointed by the Secretary to survey operations of the Bureau, made a number of recommendations for improved administration. The consultants generally praised the efficiency of OASI operations and reported they were "well impressed with the way the Bureau personnel met and dealt with the public and with the impression of both efficiency and friendliness."

Soon after the close of the fiscal year, significant legislation was enacted. Among other provisions, old-age, survivors, and disability insurance benefits are increased and benefits provided for the dependents of disabled workers. The legislation raised the amount of total earnings that may be credited for benefit purposes, and provided for an increase in tax contribution rates and a stepped-up schedule for future tax increases.

Progress and Cooperation for the Needy

Today's concept of social work is moving to a wider horizon where dependency is regarded more and more as a problem to be solved, and not merely a condition to be ameliorated. As this concept is applied more broadly and effectively, social work will move still closer to the ultimate objective—that of preventing dependency. This goal may never be attained in full for a whole society; but we can speed our progress by improved services, and more joint planning and coordination among both public and private agencies.

A great deal of this teaming up to solve the problems of human want is already taking place, and gaining impetus all the time. During the year efforts from many directions were made to learn more about dependency, and what causes it; about what kind of persons become dependent, and how they can be helped toward independence.

In June 1958, 5.6 million needy persons were receiving monthly payments under Federal-State programs of public assistance. These included 2,460,000 persons 65 and over, 2,733,000 persons receiving aid to dependent children, 313,000 permanently and totally disabled persons, and 108,000 blind persons. Total expenditures for public assistance from Federal, State, and local funds, including payments for medical care, were \$2,911,000,000 during the year. Of this, \$1,642,000,000 were Federal funds, representing 60 percent of the total budget of the Department.

In addition, more than a million people in June 1958 were receiving State or locally financed general assistance, a 71-percent increase over the previous year. Most of the increase came in the winter and spring, to include a number of unemployed men and women who had exhausted rights to unemployment insurance benefits.

There was a steady decline in the number of people receiving old-age assistance, even though the population over 65 is increasing. In June 1950 about 226 of every thousand older persons were receiving public assistance. By the end of fiscal 1958 the figure was 162 per thousand—a decline of 28 percent. This decline reflects the progress of the social insurance system in providing greater economic security—as an earned benefit—for more and more older people.

At the other end of the age scale, there was a substantial increase in need—among our children. In June 1958 nearly 2,733,000 persons received payments under the program of aid to dependent children—the largest number in any month since the beginning of the program, and 334,000 more than in June 1957, an increase of more than 12 percent. Children now represent the largest group of needy people in the Nation.

The economic recession caused part of this increase—but a major long-term factor has been the increasing breakdown of the family

unit. Most of these dependent children have been deprived of normal family life and normal support as a result of divorce, desertion, or unwed parenthood.

In August 1958 amendments to the Social Security Act were enacted to increase the amount of Federal funds available to States for public assistance, and to simplify State bookkeeping methods for claiming Federal funds. In addition, the legislation related part of the Federal share of funds to the financial abilities and needs of the States, and thus provides more assistance in low-income States where human needs are often greatest. These amendments became effective on October 1, 1958.

Progress and Cooperation for Children

The United States soon will cross a new population frontier. By 1965 the number of children under 18 years of age is expected to reach 70 million—and we will have then more children than there were people in the country less than 60 years ago. Even now our 59 million children represent one-third of the population.

Every social resource in the Nation will be challenged to provide services when and where they are required, and to keep abreast of new needs of children in a world of change.

Planning to meet future demands is a continuing need. An important means of planning and communication is offered by the White House Conference on Children and Youth, which has been held every ten years since 1909. The President has called the sixth such conference for March 1960. In preparation, special committees in each State will take stock of the problems of their young people.

The Children's Bureau during fiscal 1958 gave increasing attention to a number of problems of urgent nationwide concern.

One of these pressing problems is that of juvenile delinquency. Preliminary data for 1957 indicate that more than a half million children appeared before courts on delinquency charges. Another urgent social problem rises from the increasing number of births out of wedlock—193,500 in 1956. About 77,000 of these unmarried mothers were under 20 years of age. The Children's Bureau also intensified its activities in accident prevention, the chief cause of death to children and young people.

Following the close of the fiscal year, new amendments to the Social Security Act authorized an increase of \$5 million in future appropriations for each of the three grant programs administered by the Children's Bureau. For maternal and child health services, \$21.5 million is authorized; for crippled children's services, \$20 million; and for child welfare services, \$17 million.

As a major step forward, the new amendments authorized child welfare services for children in urban areas on the same basis as services for rural children.

Progress and Cooperation for the Disabled

The fiscal year 1958 brought further progress in our efforts to restore the disabled—and particularly the severely disabled—to independent lives.

During the year more than \$50 million in Federal funds, granted through the Office of Vocational Rehabilitation, became available for State rehabilitation programs for research and demonstration projects, and for training grants to colleges and universities to increase the Nation's supply of professional workers in rehabilitation. State legislatures increased their own expenditures for the handicapped to \$25 million or 17 percent over 1957.

For the third year in a row, a new record in the numbers of men and women rehabilitated was achieved this year. More than 74,000 disabled people were rehabilitated into employment, and in addition, more than 18,000 others were prepared and available for employment at the end of the fiscal year.

Increasingly, disabled men and women, all over the country, seek the services of rehabilitation agencies. Some are crippled by accident or disease, some are blind or deaf, others suffer from chronic illness or mental impairment. They hear of this source of hope from their doctors, from hospitals, from health agencies, from public welfare offices, or from State employment offices. But there are far more disabled men and women who need help than present facilities—public and private—can accommodate. Every year, it has been estimated, some 250,000 persons come to need, and could profit by, vocational rehabilitation programs.

During the past decade, almost 635,000 disabled people have been rehabilitated into successful employment. Taking their places on farms, in factories and shops, in homes, or as professional workers, these men and women are now active members of the American labor force. About two-thirds of those rehabilitated in 1958 had been unemployed when their rehabilitation began—the others worked only part time, or in unsafe, low-paying jobs. Those working had earned altogether about \$21.7 million a year, an average of only \$1,000 per person. The entire group will earn, during a full year of employment, an estimated \$147.8 million.

Nearly 15,000 men and women rehabilitated last year had been receiving public assistance at a rate of about \$14 million a year, which is \$1 million more than the entire cost of their rehabilitation. Obviously, this program pays for itself, in increasing the Nation's produc-

tive potential, in tax revenues, and in relieving dependency upon public assistance.

But even more important than these monetary considerations are intangible values inherent in rehabilitation. These values lie in the fostering of an atmosphere of healthy self-reliance and accomplishment for those who have overcome their handicaps—and for their families.

An expanded research program—as varied as the needs of the disabled—was well under way during the year. Altogether, 177 research and demonstration projects, including special ones for the severely disabled, have been conducted since the beginning of the research program in 1955. More than 80 new research programs were begun this past year to develop new and better methods of rehabilitation.

Increasing emphasis was placed last year on selected categories of severe disability including mental retardation, chronic illness, cerebral palsy, and epilepsy. Thirty demonstration projects in 22 States were in full operation in these fields by the end of the year, to show that these severely disabled persons can be rehabilitated with modern methods and techniques. Each of these was based upon a successful research project.

The 1954 amendments to the Medical Facilities Survey and Construction Act authorized Federal aid for the construction of much needed rehabilitation centers. Since then 82 such centers have been built at a total cost of more than \$60 million, the Federal share being about \$13.5 million. Federal funds for this work amounted to \$2,185,-835 during fiscal 1958. The bulk of the funds came from State, community, and private sources. Each center serves a wide geographical area. And each is a valuable, tangible witness to the worth of the intangible factor of cooperation.

Progress and Cooperation for Education

Stimulated in part by the launching of the first earth satellite by the U. S. S. R., interest in American education increased dramatically during the year. There were indications that the American people generally were beginning to be more concerned about weaknesses in education and more responsive to today's needs in education.

A number of events in the past few years had helped lay a basis for stepped-up progress in education.

The White House Conference on Education in 1955 was a major step toward identifying educational problems in the elementary and secondary schools and setting a course toward overcoming them.

The President's Committee on Education Beyond the High School, appointed in 1956, made a comprehensive survey of the present status and future needs of our colleges and universities. Composed of dis-

tinguished educators and laymen, the Committee in two separate reports to the President made recommendations for positive action to help our colleges and universities meet the mounting and changing needs of today's world.

In addition to these nationwide studies, in communities all over the country, parents, teachers, and citizens groups began to focus new attention on problems in their own schools. Business and labor, private foundations and organizations, began to increase their interest and support. And, as problems and soft spots in American education came in for critical, wide-scale examination, many people also found new appreciation for strengths inherent in our schools.

THE PROBLEMS

Shortage of teachers.—One of the most serious single problems confronting education is the shortage of teachers who train the scientists, researchers, social workers, businessmen, doctors, and workers in many other fields upon whom our national security and our future progress as a nation depend.

The President's Committee on Education Beyond the High School reported that by 1969 somewhere between 180,000 and 270,000 new college teachers must be recruited—between 15,000 and 22,500 annually. As it stands now, no more than 3,500 of the 9,000 students annually awarded Ph. D.'s in our graduate schools become college teachers.

In our public grade and secondary schools we were short last year by more than 130,000 qualified teachers. This means that several million children were being short changed in their educational opportunities.

The generally low salaries paid teachers at all levels of instruction are unquestionably one of the chief blocks to progress in education. At the beginning of the school year in 1957, the average grade school teacher earned only \$4,325; the average high school teacher only \$4,840; and the nationwide average for college teachers was only \$6,120 annually. This is a shockingly low return in view of the responsibilities vested in teachers and the large investment of time and money involved in their preparation for teaching.

Classroom shortage.—In the fall of 1957, the States reported almost 2 million pupils were enrolled in excess of the normal capacity of the public elementary and secondary schools.

The school year began with a shortage of 142,000 classrooms. By the end of June 1958, the overall shortage was reduced to an estimated 135,000, a decrease of only 5 percent.

The shortage was about evenly divided between the number of rooms needed to accommodate pupils in excess of normal capacity and the number needed to replace unsatisfactory facilities.

Lack of emphasis on science and mathematics.—While Americans want their schools to offer a balanced program of education in all fields of learning, there is no doubt that the teaching of science—and its essential base, mathematics—needs greater emphasis.

A 1956 survey by the Office of Education showed that of the 2,776,000 students enrolled in the 11th and 12th grades of public high schools, only 830,000 were studying science; and 659,000 were studying mathematics. At that time 100,000 seniors were in public high schools where no advanced mathematics of any kind was taught. Fourteen States did not require so much as a single course in either science or mathematics for high school graduation.

Of the men and women who are prepared to teach science and mathematics, only about 6 out of 10 actually go into teaching.

Lack of language teaching.—The United States is weaker in the teaching of foreign languages than any other major country in the world. Some two billion people speak languages that are rarely—if ever—taught in the United States. Of the 24 major languages, each spoken by more than 20 million people, only Spanish and French are studied to any degree in this country. The foreign language courses that are offered are studied in any one year by less than 15 percent of high school students, and not more than 15 percent of college students. An estimated 10 million Russians study English, but as the school year 1957 began, less than 8,000 Americans were studying Russian.

This weakness in language teaching seriously handicaps our relationship with the peoples of the world, and places us at a serious disadvantage in our efforts to build a durable world peace.

Loss of talent through school dropouts.—Much of the talent inherent in our young people is lost because many potentially capable students drop out of high school and college before graduation. This represents a tragic waste of human resources, particularly in view of our Nation's need for broadly educated men and women in science, engineering, teaching, business, government, medicine, and other professions. While studies vary, it is generally believed that every year 200,000 of the able students drop out of high school or end their formal education with a high school diploma. Some drop out of school because they need money—others because they lack interest in continuing their education.

Federal aid to education.—In the summer of 1957 a Task Force, composed of staff members from the Office of Education and the Office of the Secretary, was appointed to make specific recommendations as to just what the role of the Federal Government should be in helping the Nation's schools overcome their basic problems. The Task Force had the benefit of Congressional studies, the White House

Conference on Education, the President's Committee on Education Beyond the High School, and studies by many other groups concerned with education. The proposal, submitted by the President to Congress in January 1958, dealt with priority national needs in education, while safeguarding the diversity, freedom, and independence that are the hallmark of American education.

The National Defense Education Act of 1958, setting up a four year program of about \$900 million in Federal aid to education, follows generally the proposals made by the President. It became law on September 2, 1958.

The Act provides Federal support for testing, guidance, and counseling programs to help identify the talents of our young people and encourage their fullest development. It provides support for expanded and improved teaching of science, mathematics, and foreign languages in elementary and secondary schools. It supports area vocational training programs to develop more technicians in fields important to national defense. It provides for the training of more college teachers and language specialists and for more research in the use of television and other modern media. And it will make funds available for loans to help deserving students complete their college education.

Progress and Cooperation for Health

The Nation continued its cooperative drive toward better health. Never before have the American people shown a greater interest in medical research and medical service. Federal, State, and local governments, the medical and health professions, the numerous voluntary organizations concerned with health—all continued to increase their efforts.

Research for better health.—During the fiscal year 1958 Congress appropriated \$211 million, an increase of \$28.2 million, for the medical research and training activities of the Public Health Service's National Institutes of Health at Bethesda, Maryland.

More than two-thirds of the Institutes funds for research projects—\$99 million—went for support of more than 7,000 projects in nearly 700 institutions in every State in the Nation and in 28 foreign countries.

Grants totaling \$30 million were awarded on a matching basis to 134 medical schools, universities, hospitals, and other institutions to help build, equip, or expand their health research facilities.

More than 2,000 scientists were awarded research fellowships totaling over \$6 million. Eighty-four United States scientists studied abroad on fellowships—and 16 from other countries were awarded fellowships for study in the United States.

During the year new facilities for specialized study or treatment were opened, including a residence treatment center for disturbed children, a center to evaluate tranquilizing drugs, and a field laboratory in Panama to study tropical diseases of virus origin. As part of a worldwide program to wipe out malaria, the National Institutes of Health began an accelerated search for new methods of administering anti-malarial drugs, and for finding a more effective combination of drugs so that their potency will be extended.

At the beginning of the fiscal year the Secretary appointed a group of prominent medical educators and industry research executives to advise him on long-term needs in medical research and medical education. The consultants, under the able chairmanship of Dr. Stanhope Bayne-Jones, reported their findings in July 1958.

By 1970, the consultants reported, expenditures for medical research in this country should be tripled to reach a billion dollars a year; and, in order to conduct medical research of this magnitude, the numbers of physicians and other scientists engaged in medical research should increase from the present 20,000 to 45,000. The consultants expressed the opinion that "it would not be in the public interest for the number of physicians in the Nation to fall below the ratio of 132 for each 100,000 persons in the population," a ratio that has remained constant for the past thirty years. To maintain this ratio, the report states, would involve the construction of from 14 to 20 new medical schools at the cost of between \$500 million and \$1 billion.

Gains from health research.—The research attack against diseases of the heart and blood vessels, which kill more than 800,000 people every year, was greatly intensified, and notable gains were made.

Heartening advances in the field of cancer came through studies in virology, chemotherapy, and cytology. The relationship between viruses and cancer offers one of the more promising areas of study, and important advances were made in basic research into the nature of normal and malignant cells.

Basic research was strengthened in the attack on arthritis and other rheumatic diseases, and metabolic diseases such as diabetes and gout. During the year an oral antidiabetic drug was developed, and is now available on prescription, used by an estimated one of four diabetics. Another oral antidiabetic drug is in experimental trial stage.

Two new pain killing drugs were developed, one probably addicting but ten to twelve times more potent than morphine, and the other—nonaddicting—more effective than codeine or demerol.

A new method was developed for rapid diagnosis of influenza, which led researchers to the uncovering of two previously unknown viruses apparently prevalent in young children.

Tranquilizing drugs, which came into general use by 1956, have established a definite place for themselves in psychiatric treatment

programs, particularly in mental hospitals. Recently developed drugs with apparent effectiveness in treating depressive states point to a promising new area for drug treatment in mental illness. During the year, a number of studies in mental health were directed toward gaining more knowledge of the physiological and psychological roles of chemical agents in the body. Scientists are also studying the differences in the way normal people and the mentally ill react to drugs.

Community health services.—Last year an all-time high of \$54 million, from all sources, was spent on developing community health programs. U. S. Public Health Service funds represented only 7.4 percent of this sum.

Research in air and water pollution, and in radiological health problems, was intensified during the year.

In March 1958 a new Division of Radiological Health was created. Through research and by providing technical assistance, it helps the States deal with problems related to radiation exposure from industrial, medical, and other sources.

Programs authorized by 1956 legislation to help overcome pollution in the Nation's streams and rivers were well under way. By June 30, 1958, Federal grants for sewage treatment facilities of more than \$85.3 million had been made to more than a thousand cities and towns—which added an additional \$356.5 million of their own funds.

Important progress was made under Federal enforcement procedures to help clean up pollution of interstate streams. During the fiscal year seven interstate enforcement conferences were called by the Public Health Service.

Hospitals.—During the fiscal year \$120 million in Federal funds were granted under the Federal-State program for the construction of hospitals and other health facilities. This is substantially the same amount as for fiscal 1957, and is nearly double the amount granted 5 years ago. Today's larger expenditures reflect the growing emphasis on the construction of nursing homes, rehabilitation centers, and other facilities for long-term care authorized by the 1954 amendments.

At the end of the fiscal year 1,330 projects were in the construction or preliminary planning stages to provide 53,362 beds for inpatient care and 418 health units for outpatient care. These units include diagnostic and treatment centers and rehabilitation facilities, public health centers, and State health laboratories.

The most urgent need today is for the construction of hospitals for the mentally ill and for patients with chronic diseases. Only 14 percent of the hospital beds needed for chronic disease care are provided now; and mental hospitals today have fewer beds, in relation to the need, than they had 10 years ago.

The Public Health Service last year gave intensive study to the organization of hospital services to more nearly fit the medical and nurs-

ing needs of the individual patient. A pattern of hospital service known as "progressive patient care" is under intensive study. Under this approach facilities and services may be more precisely matched with the particular needs of each individual patient. Intensive care is given critically ill patients; intermediate care is given those who need only moderate service; ambulatory patients take care of many of their own needs; and long-term care is provided in a homelike atmosphere, with periodic check-ups and rehabilitation services offered.

Health survey.—The U. S. National Health Survey, conducted by the Public Health Service, completed its first year of operation in June 1958. Preliminary reports have been published on the extent of disability in the population, the numbers of persons injured, dental care, physicians' visits, and the prevalence and incidence of acute upper respiratory diseases. This continuing study will prove invaluable in planning future health needs of the Nation.

Asian influenza.—From early May, when word first reached the United States that a new variant of the Type A influenza virus was causing widespread epidemics in the Far East, until the end of the year when the crest of the epidemic wave had passed, the Public Health Service gave firm leadership to a nationwide, cooperative joint effort to combat Asian influenza and to alert—without unduly alarming—the public.

Armed Forces medical personnel, officials of the American Medical Association and State Medical Societies, the Association of State and Territorial Health Officers, the American Hospital Association, the Nation's drug manufacturers, and a host of other professional and voluntary organizations—all worked together to reduce the impact of the epidemic.

As a result, more than 30 million doses of vaccine were produced and distributed in the 5 months between isolation of the virus and the arrival of the epidemic, and more than 80 million doses by the end of the year. The epidemic reached its peak in mid-October when—according to the National Health Survey—some 12 million people were in bed during the week with respiratory illness, chiefly influenza.

The 1957 Asian influenza epidemic offers an almost unparalleled example of cooperation among the health agencies of the Nation. Without this cooperative effort, the effects of the epidemic undoubtedly would have been much more severe.

International health.—During the fiscal year the Division of International Health in the Public Health Service scheduled and supervised the training in this country of about 600 foreign health workers from 76 countries, including 387 sponsored by the International Cooperation Administration and 110 by the World Health Organiza-

tion. More than 100 visiting scientists, research guest workers, and post doctoral research fellows carried on their health research with assistance from the National Institutes of Health.

The Public Health Service worked closely with the Department of State in preparation for the Eleventh World Health Assembly, which met in Minneapolis from May 28 to June 14, 1958, and for the special 2-day commemorative session marking the tenth anniversary of the World Health Organization.

The Assembly adopted a United States proposal for a study of ways in which the World Health Organization can intensify its role in stimulating and coordinating international medical research, and accepted a special United States grant to WHO of \$300,000 from Department funds to pay for this study.

At the end of the fiscal year some 160 Public Health Service officers were providing technical assistance to underdeveloped countries in all phases of public health as members of ICA overseas health missions.

Progress and Cooperation for Pure Food and Drugs

During the year the Food and Drug Administration increased its activities in a number of important areas. This progress—and gains made the previous year—followed recommendations made by the Citizens Advisory Committee in 1955 that staff be increased, facilities enlarged, and techniques improved, in order to give better protection to the consumers of foods, drugs, and cosmetics, and better service to American industry.

Staff has been increased from 806 people, when the study was undertaken, to 1,215 at the close of the fiscal year. Plans are under way for a new headquarters building in Washington, a new District Office in Detroit, and one to serve the Dallas-Fort Worth area in Texas. Inspections of establishments increased from 16,287 in fiscal year 1956 to over 26,000 in 1958, and the numbers of samples of individual items collected for laboratory testing increased from about 17,000 to 25,000.

Major progress throughout the year was made in a number of specific areas, resulting in cleaner wheat for food, protection of dairy products from contamination by pesticides, prevention of bacteriologic contamination on frozen foods, and the further development of codes of labeling for drugs and cosmetics, to prevent misleading claims.

The passage by the 85th Congress of the food additive amendment represents one of the most important advances in many years in health protection under the Food, Drug and Cosmetics Act. Effective March 5, 1959, the amendment requires the manufacturer or promoter of a new food additive to submit to the Food and Drug

Administration evidence that its safety has been tested and established—before the product can be put on the market.

The safeguarding of foods, drugs, and cosmetics to assure a high degree of purity and quality is becoming more complex every year. Hundreds of drug products are developed annually, and frozen, prepared, and packaged food becomes more and more a part of the American diet.

Last year the time spent in ensuring the safe use of pesticides increased by 28 percent. The fight against quackery in "health foods" and devices continued, and regulations were rigidly enforced regarding food for special diets of infants, old people, pregnant women, and those who are ill. Work continued in analyzing radioactivity found in food today for comparison with food produced before the first atomic explosions 13 years ago.

Every year more than \$56.4 billion worth of food products, \$3.9 billion worth of drugs and medical devices, and \$1.4 billion in cosmetics move through some 83,692 factories and warehouses, subject to Federal inspection.

In carrying out its programs, the Food and Drug Administration works closely in specific areas with the American Medical Association, the Pharmaceutical Manufacturers Association, representatives of the food manufacturing and food producing industries, the National Better Business Bureau, agricultural leaders, consumer organizations, and State and local food and drug officials. From this cooperative effort and planning on the part of a number of people comes every year increased safety for all Americans in the foods, drugs, and cosmetics essential to life and well being.

* * * * *

The spirit of cooperation does not stop at our own shores and borders. Growing closer and closer in terms of time and distance, the basic interests of the peoples of the world have become increasingly intertwined. Better health, better education, improved economic and social well being—the particular concerns of this Department—represent values and goals common to all humanity. And so, in a mutually helpful exchange of information and ideas, cooperation has become a meaningful factor in our relations with the peoples and governments of other countries.

Table 1.—*Grants to States: Total grants under all Department of Health, Education, and Welfare programs, fiscal year 1958*

[On checks-issued basis]

| States, Territories, and possessions | Total | Social Security Administra- tion | Public Health Service ¹ | Office of Education | Office of Vocational Rehabilita- tion | Ameri- can Printing House for the Blind ² |
|---|--------------------|---|--|------------------------|--|--|
| Total..... | \$2, 263, 155, 658 | \$1, 835, 409, 720 | \$158, 941, 915 | \$227, 676, 648 | \$40, 789, 375 | \$338, 000 |
| Alabama..... | 63, 612, 483 | 51, 021, 509 | 5, 377, 256 | 5, 866, 313 | 1, 341, 934 | 5, 471 |
| Arizona..... | 17, 218, 902 | 11, 662, 412 | 2, 018, 046 | 3, 153, 971 | 382, 660 | 1, 813 |
| Arkansas..... | 39, 955, 928 | 32, 627, 758 | 3, 252, 898 | 2, 961, 128 | 1, 108, 704 | 5, 440 |
| California..... | 248, 277, 816 | 205, 298, 208 | 8, 025, 843 | 32, 482, 923 | 2, 447, 569 | 23, 273 |
| Colorado..... | 42, 996, 432 | 34, 575, 661 | 2, 697, 463 | 5, 413, 342 | 306, 974 | 2, 992 |
| Connecticut..... | 19, 775, 532 | 15, 427, 085 | 1, 232, 803 | 2, 731, 548 | 376, 903 | 7, 193 |
| Delaware..... | 3, 582, 872 | 2, 644, 338 | 317, 612 | 436, 454 | 183, 380 | 1, 088 |
| District of Columbia..... | 7, 259, 800 | 6, 102, 703 | 799, 699 | 120, 481 | 235, 587 | 1, 330 |
| Florida..... | 65, 952, 345 | 53, 178, 254 | 3, 752, 301 | 7, 459, 207 | 1, 551, 702 | 10, 881 |
| Georgia..... | 75, 072, 992 | 62, 037, 119 | 7, 121, 138 | 7, 141, 017 | 2, 164, 983 | 8, 735 |
| Idaho..... | 8, 828, 472 | 5, 796, 486 | 1, 145, 817 | 1, 746, 686 | 138, 516 | 967 |
| Illinois..... | 92, 966, 531 | 80, 003, 830 | 6, 571, 408 | 4, 688, 914 | 1, 686, 572 | 15, 807 |
| Indiana..... | 30, 442, 539 | 22, 598, 688 | 5, 184, 198 | 2, 132, 662 | 520, 100 | 6, 891 |
| Iowa..... | 28, 615, 903 | 23, 921, 602 | 2, 603, 956 | 1, 369, 043 | 717, 131 | 4, 171 |
| Kansas..... | 30, 584, 187 | 22, 641, 043 | 2, 323, 315 | 5, 156, 774 | 458, 944 | 4, 111 |
| Kentucky..... | 46, 353, 713 | 38, 641, 919 | 5, 045, 937 | 2, 209, 073 | 451, 646 | 5, 138 |
| Louisiana..... | 94, 505, 592 | 86, 564, 089 | 3, 635, 704 | 2, 963, 055 | 1, 337, 455 | 5, 289 |
| Maine..... | 14, 076, 212 | 11, 636, 022 | 867, 846 | 1, 309, 683 | 261, 996 | 665 |
| Maryland..... | 25, 859, 952 | 13, 704, 217 | 2, 794, 741 | 8, 915, 036 | 439, 158 | 6, 800 |
| Massachusetts..... | 72, 121, 387 | 63, 848, 574 | 3, 723, 095 | 3, 768, 402 | 763, 514 | 17, 802 |
| Michigan..... | 72, 915, 688 | 58, 083, 526 | 5, 684, 707 | 7, 784, 773 | 1, 348, 789 | 13, 843 |
| Minnesota..... | 38, 656, 710 | 32, 832, 545 | 3, 460, 879 | 1, 553, 766 | 801, 420 | 8, 100 |
| Mississippi..... | 44, 148, 072 | 37, 623, 393 | 3, 680, 466 | 2, 314, 833 | 525, 300 | 4, 080 |
| Missouri..... | 91, 922, 539 | 84, 026, 622 | 3, 254, 487 | 3, 853, 112 | 781, 910 | 6, 408 |
| Montana..... | 8, 714, 178 | 6, 536, 307 | 736, 001 | 1, 239, 408 | 200, 195 | 2, 267 |
| Nebraska..... | 14, 943, 889 | 11, 597, 485 | 1, 212, 314 | 1, 022, 649 | 328, 932 | 2, 509 |
| Nevada..... | 4, 449, 103 | 2, 359, 411 | 511, 576 | 1, 536, 932 | 41, 154 | 30 |
| New Hampshire..... | 6, 443, 660 | 4, 122, 093 | 1, 220, 266 | 1, 022, 323 | 77, 618 | 1, 360 |
| New Jersey..... | 27, 092, 402 | 19, 950, 414 | 3, 147, 682 | 3, 061, 034 | 923, 026 | 11, 246 |
| New Mexico..... | 21, 377, 958 | 12, 235, 910 | 1, 485, 015 | 7, 471, 872 | 181, 715 | 3, 446 |
| New York..... | 145, 446, 642 | 129, 084, 431 | 7, 929, 583 | 5, 519, 377 | 2, 878, 976 | 34, 275 |
| North Carolina..... | 55, 042, 686 | 43, 147, 317 | 5, 926, 381 | 4, 323, 336 | 1, 633, 864 | 11, 788 |
| North Dakota..... | 8, 376, 205 | 5, 913, 039 | 1, 440, 121 | 810, 191 | 211, 947 | 907 |
| Ohio..... | 87, 036, 161 | 74, 933, 439 | 5, 032, 031 | 6, 228, 099 | 822, 795 | 19, 797 |
| Oklahoma..... | 78, 701, 470 | 69, 102, 277 | 2, 180, 798 | 6, 487, 662 | 928, 345 | 2, 388 |
| Oregon..... | 21, 072, 801 | 16, 829, 042 | 2, 197, 857 | 1, 540, 122 | 501, 246 | 4, 534 |
| Pennsylvania..... | 71, 581, 370 | 59, 036, 670 | 5, 666, 804 | 4, 080, 123 | 2, 775, 467 | 22, 306 |
| Rhode Island..... | 11, 386, 757 | 8, 294, 349 | 758, 608 | 2, 085, 441 | 248, 299 | 60 |
| South Carolina..... | 28, 975, 326 | 21, 662, 783 | 2, 505, 298 | 4, 119, 892 | 683, 545 | 3, 808 |
| South Dakota..... | 10, 520, 958 | 7, 099, 818 | 1, 327, 587 | 1, 858, 329 | 233, 985 | 1, 239 |
| Tennessee..... | 45, 469, 037 | 37, 690, 870 | 3, 385, 856 | 3, 017, 071 | 1, 367, 714 | 7, 526 |
| Texas..... | 137, 161, 688 | 112, 256, 832 | 9, 344, 256 | 14, 113, 121 | 1, 436, 266 | 11, 213 |
| Utah..... | 13, 084, 097 | 8, 676, 050 | 1, 905, 716 | 2, 271, 261 | 179, 770 | 1, 300 |
| Vermont..... | 6, 191, 845 | 4, 314, 901 | 1, 329, 468 | 363, 916 | 182, 804 | 756 |
| Virginia..... | 35, 936, 949 | 15, 626, 654 | 4, 120, 742 | 15, 158, 354 | 1, 022, 343 | 8, 856 |
| Washington..... | 52, 623, 643 | 39, 901, 729 | 3, 756, 015 | 8, 223, 281 | 738, 628 | 3, 990 |
| West Virginia..... | 28, 980, 972 | 24, 664, 637 | 2, 282, 118 | 983, 741 | 1, 046, 668 | 3, 808 |
| Wisconsin..... | 33, 589, 312 | 27, 865, 795 | 3, 237, 775 | 1, 540, 223 | 939, 021 | 6, 498 |
| Wyoming..... | 4, 674, 995 | 2, 910, 022 | 646, 017 | 1, 013, 290 | 105, 334 | 332 |
| Alaska ³ | 6, 893, 810 | 2, 064, 000 | 175, 333 | 4, 548, 579 | 105, 898 | ----- |
| Hawaii..... | 9, 851, 643 | 4, 128, 677 | 1, 863, 218 | 3, 691, 957 | 166, 008 | 1, 783 |
| Puerto Rico..... | 10, 162, 175 | 6, 502, 071 | 2, 368, 889 | 804, 956 | 483, 871 | 2, 388 |
| Virgin Islands..... | 547, 045 | 55, 150 | 55, 150 | 76, 105 | 10, 394 | 302 |
| Guam..... | 1, 174, 332 | ----- | 21, 825 | 1, 151, 807 | 700 | ----- |

¹ Excludes \$248,613 paid to water pollution interstate agencies.² Includes permanent annual appropriation of \$10,000.³ Additional payments were made to Alaska of \$638,000 for disease and sanitation investigation and \$1,000,000 for the mental health program.

Social Security Administration

Social Security in 1958

THE IMPORTANCE OF SOCIAL SECURITY in providing basic economic protection for its beneficiaries was again demonstrated during the downturn in business activity that marked the middle months of fiscal year 1958. Total social security payments reached a peak by April, when they approached an annual rate of \$24 billion. Old-age, survivors, and disability insurance benefits accounted for almost one-third of the total, unemployment insurance (administered by the Department of Labor and State employment security agencies) for more than one-fifth, and public assistance payments for about one-seventh. Benefits paid under other public programs such as Federal, State, and local employee retirement systems, railroad retirement, veterans' programs, workmen's compensation, and temporary disability insurance accounted for the remainder.

At fiscal year's end, 11.9 million persons were receiving monthly benefit checks under the old-age, survivors, and disability insurance program; 5.6 million were receiving assistance payments under federally aided programs for the needy aged, dependent children, blind persons, and persons permanently and totally disabled; 1.2 million persons were on State and local general assistance rolls; and 2.8 million unemployed workers were collecting weekly compensation checks to help tide them and their families over while they sought new jobs. And under new legislation, unemployed workers who had exhausted their rights to benefits were beginning to get payments from temporary programs for extended benefits. During July 460,000 persons received their first checks under the temporary programs.

Our social security system protected not only these millions of individuals but also—particularly in the recession period—assisted ma-

terially in sustaining purchasing power. In June 1958, social insurance, related payments, and public assistance accounted for 6.6 percent of total personal income in the United States compared with 5.4 percent a year earlier. The increase was due mainly to increases in benefits paid under the growing old-age, survivors, and disability insurance program and to increased unemployment insurance payments.

Legislation liberalizing old-age, survivors, and disability insurance benefits and revising formulas for Federal grants to the States for public assistance and child welfare was in the process of enactment as the fiscal year closed.

The legislation increases old-age, survivors, and disability insurance benefits by about 7 percent in recognition of rises in wages and living costs since benefits were last increased in 1954.

To pay for the higher benefits and to help maintain the system on a self-supporting basis, contributions to the system are increased one-fourth percent of taxable earnings each for the worker and his employer and three-eighths percent for the self-employed in 1959 and, beginning in 1960, scheduled increases are accelerated to take place at 3-year intervals instead of 5, as before. The amount of taxable earnings counted for benefits was raised from \$4,200 to \$4,800.

The disability insurance provisions of the Social Security Act are amended in a number of ways. Most important is the regulation providing the same benefits for dependents of disabled beneficiaries as are now provided for dependents of old-age insurance beneficiaries.

Amendments to the public assistance titles of the Act furnish a new formula for Federal participation in public assistance payments that will provide additional funds to all the States and more flexibility in meeting individual needs, including medical care needs. The formula also recognizes the limited fiscal capacity of the lower income States and will enable these States, in particular, to raise assistance levels.

New provisions for child welfare services remove the requirement that Federal funds allotted to the States be used in predominantly rural areas or other areas of special need. This permits extension of services under the program to children in urban areas on the same basis as to children in rural areas. Appropriate changes in allotment and matching provisions take into account the total child population of each State and the State's per capita income.

The authorization for grants for child welfare services is increased from \$12 million to \$17 million a year. Authorizations for grants for maternal and child health services go from \$16.5 million to \$21.5 million and for crippled children's services from \$15 million to \$20 million. The increases are not mandatory but depend on annual appropriations until the new ceilings are reached.

Amendments to the Act also establish two advisory councils. One will review the status of the public assistance programs. The other

will be concerned with the extension of child welfare services beyond rural areas. The councils are scheduled to report by the beginning of 1960.

The 1958 amendments touch the lives of practically all Americans. About 75 million people are now building a basic foundation of economic security for themselves and their families by contributions at some time during the year to old-age, survivors, and disability insurance. Almost 12 million—about 1.6 million more than in the preceding June—received benefits that insured workers had earned by working in covered jobs. Of these, 9.7 million—about 81 percent—are men aged 65 or over and women aged 62 or over; 1.9 million are dependent children and widowed mothers, and 200,000 are disabled workers aged 50–64. Benefits paid in fiscal year 1958 totaled more than \$8 billion, as compared with \$6.5 billion in the previous year.

A measure of the significance of this program in the lives of beneficiaries is revealed by a national survey made in the autumn of 1957. Highlights of the study show that benefits paid provide—

- practically the only money income—that is, other than \$75 or less a year—of about one-fourth of aged beneficiaries,
- practically all the independent retirement income for more than half of the aged beneficiaries,
- virtually the sole income of one-eighth of widowed mothers with entitled children,
- practically all the income expected to continue until the youngest child grows up for more than three-fifths of the widows with entitled children.

With the old-age, survivors, and disability insurance program providing greater economic security for more and more of our older citizens, the number of aged persons receiving payments under the federally aided assistance program continued to decline even though the number receiving both benefits and assistance increased.

But as the old-age assistance caseload diminished, the number of persons receiving aid to dependent children climbed. In December, for the first time since the programs began, persons receiving aid to dependent children outnumbered those receiving old-age assistance. The number of recipients increased 334,000 over the year to reach 2.7 million. The increase was attributed in part to economic conditions, but long-term factors such as the growth of the child population, the number of family breakdowns and the rising rate of illegitimacy were also responsible.

The economic situation was also reflected in State and local general assistance programs where the number of cases rose 54 percent over the June 1957 total to reach the year's high in April 1958 of 454,000 cases, and then declined to 418,000 at fiscal year's end.

The caseload in the program of aid to the permanently and totally disabled increased 10 percent over the year—from 284,000 to 313,000—while the number of needy blind receiving assistance remained practically unchanged at 108,000.

The Children's Bureau began its 47th year of service in promoting the well-being of our Nation's children. Programs of the Bureau continued to promote child welfare services for neglected children, children with physical or mental handicaps, runaway children, children born out of wedlock, and others with a wide variety of problems.

Figures from the States show that the number of children served by State and local agencies under the crippled children's program reached a new peak in 1957, when about 313,000 were given diagnostic services or treatment. These services are being extended to an increasing number of children with nonorthopedic conditions, such as congenital heart ailments.

Under the 1957 program of maternal and child health services, 210,000 mothers received maternity medical clinic services and 447,000 received maternity nursing service. About 1.3 million infants and other children received well-child conference services and 2.9 million received child health nursing service.

Preliminary figures from the States show that public child welfare agencies were providing services to nearly 340,000 children at the end of March 1958.

State health departments are now administering 44 programs for mentally retarded children with about \$2 million, most of which represents Federal funds allocated to maternal and child health. Three years ago there were only four such programs.

Actual expenditures by States for the programs for maternal and child health, child welfare, and crippled children's services rose \$23.2 million to a total of \$271.9 million during 1957. The Federal share amounted to \$38.1 million.

The growing problem of juvenile delinquency continues to be a major concern of the Children's Bureau. The upswing in the number of juvenile court delinquency cases is one indication of the seriousness of the problem. The number of cases increased for the ninth consecutive year in 1957. The increase was 16 percent, while the child population increased only 7 percent. Bureau staff provided expert consultant service and worked with a wide range of agencies on delinquency-related matters.

Federal credit union assets, after registering steady growth over the years, dipped seasonally in January 1958, then recovered and went on to a record \$1.9 billion in June, an increase of 14 percent over the year. At the end of June there were 8,992 active Federal credit unions with about 5 million members.

To carry on its programs of service dedicated to the economic and social welfare of the American people, the Social Security Administration had 23,540 employees at the end of June, slightly more than 1,000 over the previous year. The great majority of these employees were in district offices and other offices of the Bureau of Old-Age and Survivors Insurance.

International Activities

Growing interest in promoting the social welfare of the peoples of the world was evident from the expansion of international programs concerned with social services and social security. The Social Security Administration participated in the activities of organizations such as the United Nations Economic and Social Council, the United Nations Children's Fund, the International Labor Organization's Committee of Social Security Experts, the International Social Security Association, and the Inter-American Children's Institute of the Organization of American States.

The Social Security Administration continued active cooperation with other international organizations by participating in the work of the International Conference of Social Work of the Pan American Congress of Social Service. Staff members served on the international committees of the National Social Welfare Assembly, the National Association of Social Workers, and the Council on Social Work Education.

During the year the Social Security Administration was assigned responsibility for representing the Department of Health, Education, and Welfare on the Interdepartmental Committee on International Social Welfare Policy and the Interdepartmental Committee on International Labor Policy. The Committee on International Social Welfare Policy participated in preparing papers for the United Nations General Assembly, the United Nations Children's Fund, and sessions of the United Nations Economic and Social Council. The Committee on International Labor Policy formulated positions for the United States delegation on items on the agenda of the June 1958 International Labor Conference and the May-June session of the International Labor Organization Governing Body.

A reciprocal exchange of social workers with Austria, Belgium, Norway, Sweden, and Yugoslavia was worked out in cooperation with the Department of State. The Social Security Administration furnished administrative services for the program and for a proposed committee to assist in selecting the first group of Americans to study abroad and to advise on training resources for Europeans in this country.

During fiscal year 1958 the Social Security Administration arranged for training for 1,057 from foreign countries, a 37 percent increase

over the previous year. Of the 66 nations represented by the trainees, 21 were Latin American countries, 18 were European, 15 were Asian, and 8 were African. The remaining countries were Australia, Canada, New Zealand, and the Philippines.

Most of the 606 participants whom the International Cooperation Administration referred to the Social Security Administration for training were interested in social welfare administration, program development in public assistance, social insurance, and family and child welfare.

Forty-six United Nations fellows and scholars came to study social welfare administration and education, social work methods, community organization and development, and child welfare programs; 24 World Health Organization fellows and scholars were concerned with maternal and child health.

The notable increase in the number of foreign persons seeking training with the Social Security Administration under sponsorship other than the International Cooperation Administration, the United Nations, and the World Health Organization continued. They numbered 378, or 51 percent more than in fiscal year 1957. These visitors were sponsored by various governments and embassies, the Asia Foundation, Atlantique, the Carnegie Corporation, Eisenhower Exchange, Reciprocal Exchange, the Ford Foundation, the National Council of Jewish Women, the Rockefeller Foundation, and others.

The growing number and variety of requests created further need for developing fresh resources for training and study in social welfare agencies and community development projects. Current and prospective needs for new resources were outlined in conferences with State and local social welfare leaders and with regional representatives and the central office staff of the Children's Bureau and the Bureau of Public Assistance as well as in visits to schools of social work.

Fiscal year 1958 saw a decline in the number of experts assigned to overseas technical missions of the International Cooperation Administration in the fields of social welfare, social insurance, and maternal and child welfare—fields in which the Social Security Administration is responsible for nominations and technical support. The number on duty this year was 11 experts in 9 countries, compared to 25 experts in 13 countries during 1957.

New requests for experts under the International Cooperation Administration program came from Chile, Peru, Tunisia, Pakistan, and Paraguay.

During the year, as a result of meetings with United Nations and International Labor Organization experts, the Social Security Administration undertook the recruitment in its various fields of competence for international positions overseas. Candidates were recom-

mended for social work or social security vacancies in Indonesia, Liberia, Pakistan, and Libya. The Administration also made arrangements to include international organizations in the provision of current technical materials assembled for use of social welfare personnel in overseas missions.

Old-Age, Survivors, and Disability Insurance

During the fiscal year 1958 the old-age, survivors, and disability insurance program continued to provide an increasing degree of protection for the American worker and his family against loss of income resulting from retirement, disablement, or death. Almost 12 million persons were drawing monthly benefits at the end of the fiscal year, and 75 million persons who worked sometime during the year made social security tax contributions under the system.

A most significant development was the enactment soon after close of the fiscal year of the Social Security Amendments of 1958. This new legislation increased benefits for all beneficiaries, raised the amount of total earnings that could be taxed and credited for benefit purposes, provided benefits for certain dependents of disabled workers, and provided an increase in 1959 contribution rates and a stepped-up schedule for future rate increases.

The amendments also included provisions relative to the disability freeze and disability benefits, the retirement test, adopted children, remarriage of certain beneficiaries, duration-of-marriage requirements, and minor coverage changes. In addition, many simplifications in the program were accomplished through these amendments. The changes made by legislation resulted in a program which, on balance, is easier to administer, explain, and understand than the program before the legislation was enacted.

Considerable attention was directed during the year to the program's financing. For the first time more was paid out from the Federal Old-Age and Survivors Insurance Trust Fund than was taken in. Estimates toward the close of the year indicated that, under the schedule of taxes then in the law, outgo would continue to exceed income in most, if not all, years until 1965. After careful consideration, Congress included in the 1958 amendments a new schedule of contribution rates which significantly improves the relationship between trust fund income and outgo over the next few years and substantially strengthens the long-range financial basis of the program.

During the year, the first Advisory Council on Social Security Financing, authorized by the 1956 amendments, was appointed and began its study of the status of the trust funds in relation to long-term commitments.

The Bureau of Old-Age and Survivors Insurance during the year faced the second greatest workload in its history and overcame many difficulties in maintaining high standards of operation and of personal service to the people served by the program. The impact of the 1956 amendments on the Bureau was evidenced by the more than 500,000 benefit awards to women age 62 to 64 under the lower-retirement-age provisions, and by the more than 200,000 disabled beneficiaries who were drawing benefits by the end of the fiscal year.

The Bureau continued to make good progress in the automation of its machine processes—it extended its use of electronic machines and magnetic tape in the maintenance of social security records and in the benefit payment processes. Service to the public was improved by the opening of twenty-six additional district offices, bringing the total of these local service offices to 584. As a step toward achieving better over-all disability insurance operations, plans were completed for opening a seventh payment center in Baltimore, Maryland.

A significant development in Bureau management during the year was the issuance of a "Statement of Bureau Objectives," to be used as a guide for planning, and as a yardstick against which to measure adequacy of performance. The objectives relate to the Bureau's responsibility to the public in administering the program, its responsibility for helping to improve the program, its obligation to contribute to the Government as a whole, and its responsibility as an employer to its own employees. Although most of the ideas in the statement are general principles and goals already governing the Bureau's operation, the formal statement of the objectives has major advantages, particularly in view of the size and geographic distribution of the Bureau's staff and the large number of new employees.

What the Program Is Doing

Beneficiaries and benefit amounts.—The number and amount of monthly benefits being paid under the program continued to rise sharply in fiscal year 1958. In June 1958, 11.9 million persons were receiving benefits at a monthly rate of \$659.7 million—increases from June 1957 of almost 1.6 million in number and \$105.0 million in amount. Men aged 65 or over and women aged 62 or over made up 9.7 million (81 percent) of the beneficiaries—6.6 million of them retired workers and 3.1 million the wives and dependent husbands of retired workers and the widows, dependent widowers, and dependent parents of workers who had died. Of the remaining 2.2 million (19 percent), almost 1.6 million were children, some 435,000 were mothers, and 200,000 were disabled workers aged 50–64.

Almost 2.5 million monthly benefits (including disability insurance benefits for the first time) were awarded in fiscal year 1958, only

200,000 less than the record number of awards made in the preceding year. New highs were reached for awards of mother's and of child's benefits. Decreases from the number of benefits awarded in fiscal year 1957 occurred in old-age, wife's and husband's, widow's and widower's, and parent's benefits. (The record number of awards of these types of benefits in 1957 reflected the large number of claims filed by self-employed farmers and other workers who qualified on the basis of work newly covered under the 1954 amendments and by women who qualified under the provision in the 1956 amendments lowering the retirement age for women from 65 to 62.) Awards in 1958 of old-age, wife's or husband's, and widow's or widower's benefits were, however, much larger than in any fiscal year other than 1957. A record number of 737,000 lump-sum death payments were awarded in the 1958 fiscal year.

In June 1958, the average old-age insurance benefit paid to a retired worker who had no dependents also receiving benefits was \$61.80 a month. When the worker and his wife both received benefits, the average for the family was \$109.90. Families consisting of a widowed mother and two children received on the average \$148.70. Among beneficiaries on the rolls at the end of June 1958 whose benefits are based on earnings after 1950 with eligibility to omit years of lowest earnings, the average for a retired worker with no dependents receiving benefits was about \$72.50, for an aged couple about \$121.50, and for a widowed mother and two children about \$180.00.

Disability provisions.—During the fiscal year, a period of disability under the disability freeze provisions that have been in effect since 1955 was established for almost 207,000 workers at all ages. A worker for whom a period of disability has been established has his insurance rights preserved during the period in which permanent and total disability prevents him from performing any substantial gainful work. Thus, such periods will not count against him in determining whether he or his survivors are eligible for benefits or in calculating the amount of the benefits.

At the end of June 1958, 200,000 disabled workers aged 50–64 were receiving disability benefits at a monthly rate of \$14.9 million. About 178,000 of the beneficiaries were receiving full-rate benefits averaging \$81.05 a month. Almost 23,000 beneficiaries who were also receiving a workman's compensation benefit or another Federal benefit for disability—other than compensation payable by the Veterans Administration for a service-connected disability—had their disability insurance benefit reduced by the amount of such benefit. As a result, their reduced-rate benefits averaged only \$22.37 a month. The disability insurance benefits for almost 14,000 additional workers were completely offset by other benefits that they were receiving because of disability.

By the end of December 1957 about 50,900 persons were receiving old-age benefits that had been increased by an average of \$9.54 a month as a result of having had a period of disability established. The higher benefits were partly attributable to dropping as many as 5 years of lowest earnings in the computation of the worker's average monthly wage when eligibility for such dropout stemmed from the disability freeze. About 16,800 wives and young children of retired workers and about 11,100 widows, children, and dependent parents of workers who had established a period of disability before death were also receiving larger monthly benefits because of the freeze. For the same reason, lump-sum death payments during the calendar year ended December 1957 based on the earnings records of 10,800 deceased workers were increased by an average amount of \$24.90 per worker.

Child's monthly benefits are payable to totally disabled persons aged 18 or over—dependent children of deceased or retired insured workers—whose disability began before age 18. About 28,000 persons met the disability requirements for these benefits during the fiscal year and 6,000 applications were denied. By the end of June 1958, such child's benefits were being paid to 39,500 persons at a monthly rate of \$1.5 million. About 6,700 women—who would not otherwise receive benefits—were receiving wife's or mother's benefits as the mothers of disabled persons receiving child's benefits.

The protection provided.—Of the population under age 65, an estimated 66.7 million were insured at the beginning of the calendar year 1958. Some 29.7 million of these people were permanently insured—that is, whether or not they continued to work in covered jobs they will be eligible for some benefits when they reach retirement age, and their families are assured of protection in the event of their deaths. Included in this total were some 0.7 million women aged 62–64 who were already eligible for old-age benefits. The remaining 37.0 million were insured but would have to continue in covered work for an additional period to make their insured status permanent. Nine out of ten mothers and young children in the Nation were assured that they would receive monthly benefits in case of the family earner's death. An estimated 7 million insured persons under age 65 also met the work requirements for protection against the risk of long-term and severe disability.

Of the 15.1 million people aged 65 or over in December 1957, 67 percent were eligible for benefits under the program. Fifty-five percent were actually receiving benefits, and 12 percent were not receiving benefits because they or their husbands were receiving substantial income from work. The percentage of eligible aged persons is expected to rise to more than 70 percent by 1960.

The coverage of the program.—Approximately 75 million workers were under old-age, survivors, and disability insurance coverage dur-

ing the course of the calendar year 1958. An additional 1 million people employed in the railroad industry were assured, through the close coordination of the railroad retirement and old age, survivors, and disability insurance programs, benefits at least equal in amount to those that would have been payable if their railroad employment had been covered under the Social Security Act. Altogether, including State and local government and nonprofit employees for whom coverage is available on a group-election basis; clergymen, for whom coverage is available on an individual voluntary basis; and members of the Armed Forces, nine-tenths of all persons in paid employment or self-employment were covered or could have been covered by old-age, survivors, and disability insurance in June 1958.

Of the workers not eligible for coverage, about one-third were covered by other public retirement programs—Federal, State, or local. The remaining two-thirds—7 percent of the Nation's paid employment—were not covered by any public retirement program. Those without retirement protection under a public system consisted principally of self-employed persons whose annual net earnings were less than \$400, of domestic and farm workers who did not earn sufficient wages from any one employer to meet the minimum coverage requirements of the law, and of self-employed doctors of medicine.

Income and disbursements.—Expenditures from the Federal Old-Age and Survivors Insurance Trust Fund during the fiscal year totaled \$8,041 million, of which \$7,875 million was for benefit payments and \$166 million, including Treasury Department costs, for administrative expenses. Total receipts were \$7,824 million, including \$7,267 million in net contributions, \$556 million in interest on investments, and \$2 million in transfers from the railroad retirement account. Disbursements exceeded receipts by \$216 million, the amount of the decrease in the trust fund during the year. At the end of June 1958 this fund totaled \$22.8 billion.

Total assets of the old-age and survivors insurance trust fund, except for \$1,048 million held in cash, were invested in United States Government securities as required by law; \$3.2 billion were invested in public issues (identical with similar securities owned by private investors), and \$18.6 billion were invested in securities of varying maturities issued for purchase by the trust fund. The average interest rate on all investments of this fund at the end of the fiscal year was 2.54 percent.

The Federal Disability Insurance Trust Fund was created by the Social Security Amendments of 1956. Contributions to this fund became payable in January 1957. Benefit disbursements began in August 1957. Expenditures from the disability insurance trust fund during the fiscal year totaled \$181 million, of which \$168 million was for benefit payments and the remainder—some \$12 million—was for

administrative expenses. Total receipts were \$942 million, including \$926 million in net contributions and \$16 million in net interest. Receipts exceeded disbursements by \$762 million, the amount of increase in the fund during the year. At the end of June 1958, the fund totaled \$1,099 million.

Assets of the disability insurance trust fund consisted of \$1,054 million in United States Government securities and a cash balance of \$45 million. The invested assets consisted of \$59 million in public issues and \$996 million in securities of varying maturities issued for purchase by the trust fund. The average interest rate on all investments of this fund at the end of the fiscal year was 2.54 percent.

Administering the Program

The primary objective of the Bureau of Old-Age and Survivors Insurance in advance planning for fiscal year 1958 was a shift in emphasis from the enforced emergency processing of peak workloads in 1957 to careful and systematic review and evaluation of its management programs and methods of operation. This emphasis appeared feasible in the spring of 1957 since it seemed then that the Bureau, for the first time since 1950, would not soon be faced with sharp workload increases due to program amendments. Looking ahead to a more stable level of operations the Bureau planned to direct its efforts to improving the quality of its work, the effectiveness of its processes and the efficiency of its people with the aim of making good progress toward an optimum level of public service in a program which has been greatly expanded by a series of amendments. However, the economic recession and some delayed impacts of the amendments of 1954 and 1956 resulted in workload pressures greater than anticipated and made it necessary for the Bureau to direct its resources to work processing and reduction of backlogs to a greater degree than planned, while at the same time working to make reasonable progress in the long range effort of evaluation and improvement.

A few key figures illustrate the dimensions of the Bureau's operating task in processing the workloads received during the year. Approximately 2,680,000 claims for old-age and survivors benefits were filed; about 473,000 claims for disability insurance benefits and the disability "freeze" were received. Quarterly receipts of retirement and survivor claims were heaviest during the January-March 1958 quarter and the number pending in the district offices increased during that quarter to a high point of over 263,000. By the end of June 1958, this pending load was reduced to an approximately normal in-process figure of 155,000.

The disability operation was an area of particular concern during the year. The first disability insurance benefits were paid early in

August (for the month of July) to about 100,000 disabled workers. By the end of the year, 200,000 beneficiaries were receiving payments. The backlog of disability claims (resulting from the 1956 amendments) on hand in the district offices, the State agencies (which make determinations of disability under agreements with the Department), and the Bureau's Division of Disability Operations, was reduced from about 200,000 in January 1958 to 124,000 by the end of June. In addition to a large number of cases to process, the Bureau had to overcome the delay in completing action on disability claims which are generally more complex than claims for retirement or survivors benefits and take a correspondingly longer time to process. During the year processing time was reduced from 5 or 6 months to 2½ to 3 months.

New social security accounts were established for approximately 3.2 million persons and a total of almost 3 million duplicate account number cards were issued during the year. Approximately 250 million earnings items were received for posting to individual accounts. In addition, 1.9 million requests for a change in records were processed, and 960,000 statements of earnings were issued.

To cope with workloads which exceeded estimates, the Bureau increased its staff by 890 from 21,471 to 22,423 employees and used over 1,500 man-years of overtime. The total of 22,423 included 520 temporary employees.

In line with expanded needs for serving the public, 26 additional district offices were opened in various parts of the country during the fiscal year. The new offices were located in areas requiring increased facilities for agricultural communities and in growing population concentrations developing from industrial expansion. In addition, 3,665 contact stations were serviced on a regularly scheduled part-time basis by the local offices.

During the year a decision was made to establish a payment center in Baltimore to consolidate the disability claims functions performed by the other six payment centers and to assume the service, control, and files activities of the Division of Disability Operations. The new payment center, opened in September 1958, will also perform all functions related to the review and certification for payment of retirement and survivors claims for residents of foreign countries.

A number of activities during the year were aimed toward improving the recordkeeping processes. A study to determine the feasibility of microfilming the huge National Employees Index file of account number holders in the Division of Accounting Operations resulted in a decision to convert the entire file of 160 million strips to microfilm with quarterly updating by the use of electronic tape and electronic data processing equipment. This will result in net savings of about \$1,450,000 over a 10-year period.

The use of electronic equipment in the earnings record process has been extended successfully with substantial savings. The first IBM Type 705 electronic data processing system was introduced in fiscal year 1957. Early in fiscal year 1958, a second such system was installed. As a result of these two installations, operating costs for fiscal year 1959 will be at a level some \$1.8 million less than if conventional equipment were used.

Plans are being developed for the introduction in fiscal year 1960 of a third electronic data processing system in the earnings report process. When this has been completed, practically all of the earnings records operations, after initial key punching, will be performed by electronic equipment at an estimated additional annual savings of about \$250,000.

In another area of operations, magnetic tapes have been prepared containing data from the payee punch cards used in the payment center processes. This tape will be used to prepare the annual tabulations of beneficiaries and benefits by State and county, and will make available a wider range of statistics in shorter periods of time. Initial savings are estimated to be approximately \$50,000 a year. The magnetic tapes were also set up so that they could be used for conversion of monthly benefit amounts. This will greatly expedite processing the benefit increases effective in 1959.

During the year the Bureau was surveyed by a group of business leaders (under the chairmanship of Mr. Reinhard A. Hohaus, Vice President and Chief Actuary of the Metropolitan Life Insurance Company) selected by the Secretary to review the broad aspects of the manner in which the Bureau discharges its responsibilities in administering the old-age, survivors, and disability insurance program.

The report of the Committee, submitted to the Secretary on June 20, 1958, summed up its broad findings by stating that ". . . the Bureau is carrying out its mission in a sound and vigorous manner. It should be a source of satisfaction to the Secretary to know that the Bureau has been a pioneer in the very difficult matter of introducing automatic machinery into the paper-work area with substantial savings to the Trust Funds. . . ." It further stated that the consultants ". . . were impressed with the effective and competent manner in which the staff of the Bureau appeared to be managing their responsibilities," and that they were ". . . well impressed with the way the Bureau personnel met and dealt with the public and with the impression of both efficiency and friendliness created by the typical OASI district office." The Committee made several recommendations for procedural changes dealing with internal Bureau methods and operations and primarily concerned with the application of integrated data processing techniques and automation.

Two recommendations involve Bureau relations with other agencies. The first, adoption of the Combined Annual Reporting Plan, which involves the Internal Revenue Service, would require legislative authorization before it could be effected. The second was a recommendation that the check writing function associated with benefit payments be transferred from the Treasury Department to the Bureau.

Since July 1, 1955, the Birmingham Payment Center has been issuing benefit checks under a Treasury Department delegation. The Treasury Department will resume issuance of these checks early in fiscal year 1959.

During the fiscal year, design of the new Bureau building in Baltimore was completed. On October 31, 1957, contracts were signed with the general contractors and construction was started in November. Under the contract, the building is to be completed in February 1960.

Total administrative costs for the program in fiscal year 1958 amounted to approximately 2.1 percent of contributions to the trust funds. An assessment of operations in the perspective of recent years experience shows that the workload of the Bureau increased approximately 203 percent from 1950 to 1958, while average staff increased by only about 109 percent during the same period.

Legislative Developments During the Year

The most important measure affecting old-age, survivors, and disability insurance was the enactment, soon after the end of the fiscal year, of P. L. 85-840, the Social Security Amendments of 1958. This legislation, originating in the Committee on Ways and Means as H. R. 13549, was passed by the House of Representatives on July 31 and by the Senate on August 16; it was signed by the President on August 28. Ten other public laws enacted by the Eighty-fifth Congress make minor changes in the program.

PROVISIONS OF THE 1958 AMENDMENTS

Increase in benefit amounts.—Monthly benefit amounts were increased by about 7 percent over the levels provided by the 1954 amendments, effective with benefits for January 1959. The minimum increase in benefits for workers who retired at or after age 65 was \$3; the average increase for workers already retired was \$4.75. Under the new provisions, benefits for workers already retired (except for women who draw actuarially reduced benefits before age 65) will range from \$33 to \$116, as compared with \$30 to \$108.50 under previous law. For those coming on the benefit rolls in the future, taking into account the increase in the earnings base from \$4,200 to \$4,800, benefits can be as high as \$127, although it will be many years before the maximum amount will be generally available in retirement cases.

Payments to dependents and survivors of insured workers were also increased by the amendments. The minimum amount payable to a sole survivor was raised from \$30 to \$33; the maximum family benefit payable (within the limitation of 80 percent of the insured worker's average monthly wage) was raised from \$200 to \$254, effective with benefits for January 1959.

Increase in the earnings base.—The maximum amount of annual earnings taxable and creditable toward benefits was increased from \$4,200 to \$4,800, effective January 1, 1959. The \$4,800 maximum restores the relationship between workers' taxable and total earnings that existed in 1954, when the \$4,200 earnings base was adopted. The \$4,200 base covered all the earnings of about 56 percent of regularly employed men in 1954. In 1957 only 43 percent of such workers had all their earnings credited; about 56 percent will have all their earnings credited under a \$4,800 base.

Increase in contribution rate.—The scheduled contribution rates on earnings paid by employers and employees were each increased by $\frac{1}{4}$ of 1 percent, with an increase of $\frac{3}{8}$ of 1 percent for the self-employed, effective in 1959. Scheduled future increases in the tax rates, beginning in 1960, are to take place at 3-year rather than at 5-year intervals.

Benefits for dependents of disability insurance beneficiaries.—Benefits for dependents of disability insurance beneficiaries are payable for the first time for the month of September 1958, and are provided for the same categories of dependents as in the case of dependents of old-age beneficiaries, that is, for wives and dependent husbands who have reached retirement age, for unmarried dependent children (including sons or daughters disabled in childhood), and for wives who have an entitled child in their care. These monthly benefits are subject to the same conditions as are applicable in the case of dependents of old-age beneficiaries and, in addition, are suspended if the disabled worker refuses, without good cause, to accept vocational rehabilitation services. The provision for benefits for dependents of disability insurance beneficiaries closes a gap in the protection which the program affords to families whose income is cut off or reduced because the breadwinner is no longer able to work.

Repeal of disability benefits offset provision.—Another significant change made by the amendments was the repeal of the disability benefits offset provision, effective with disability benefits payable for the month of August 1958. Under the offset provision, included in the disability provisions in 1956 to prevent duplication or pyramiding of benefits, disability benefits (and benefits payable to persons disabled in childhood) were reduced by the amount of any periodic benefits payable to an individual on account of disability under certain other Federal programs or under State workmen's compensation programs.

As of June 30, 1958, about 36,000 disability insurance benefits (and less than 1,000 childhood disability benefits) were either reduced or withheld under the offset provision.

Disability work requirements.—The 1958 amendments eliminated the currently insured requirement for both disability benefits and the freeze and added as a requirement for the freeze that the worker must be fully insured. The currently insured requirement had operated to deny disability protection in many cases in which there was no doubt that an individual had stopped working because of disability. Many persons who had worked for substantial periods failed to meet the requirement because of interruptions in their work due to progressive illness which did not become severe enough to meet the definition of disability until after they had lost their currently insured status.

Under prior law, it would have been possible, after June 1961, for a person to qualify for a freeze, and yet fail to qualify for disability benefits at age 50 or for old-age retirement benefits. There could also have been instances where dependents' or survivors' benefits would not be payable even though the worker had been allowed a disability freeze. It is estimated that the changed work requirements resulted in making about 35,000 persons, who could not have previously qualified, immediately eligible for disability benefits and the disability freeze and, in addition, about 15,000 persons eligible for the freeze.

Retroactive disability insurance benefits.—The amendments provide retroactive payment of disability benefits for as many as 12 months before the month in which application is filed for such benefits. Applications for disability benefits are thus now accorded the same retroactive effect as applications for other types of monthly benefits under the program.

Postponement of deadline for filing fully retroactive freeze applications.—The amendments postpone for 3 years the June 30, 1958, deadline for filing applications for the disability freeze which permit a period of disability to be established as early as the actual onset of the disability; with respect to applications for the freeze filed after June 30, 1961, the beginning of a period of disability may predate the filing of an application by as many as 18 months. Under prior law, a period of disability could begin no earlier than 1 year before application if filing occurred after the deadline for fully retroactive applications. The postponement of the deadline makes it possible for about 30,000 additional disabled workers to become immediately eligible for disability benefits; an additional estimated 10,000 can become immediately eligible for the freeze.

The retirement test.—The amendments increased from \$80 to \$100 the amount of wages an employed beneficiary who has total annual earnings in excess of \$1,200 may have in a month without losing benefits, and made changes to improve administration of the test.

Dependency provisions.—Changes in the provisions for dependents' benefits increased protection for children and for dependent parents, and provided protection for certain beneficiaries who marry or remarry.

Employees of nonprofit organizations.—The amendments provide for a limited period of retroactive coverage for employees of nonprofit organizations which elect coverage after 1959. Nonprofit organizations which elect, or have elected, coverage after 1955 and prior to 1960 may cover employees retroactively to January 1, 1956. Under another provision, a nonprofit organization employing persons in positions covered by a State or local retirement system who are members, or eligible to become members of such a system, is required to treat these employees as a completely separate group for purposes of social security coverage.

P. L. 85-785 makes technical changes which broaden slightly the provisions of existing law under which tax returns filed by a nonprofit organization before it filed its waiver certificate may establish social security credit for wages reported on these returns if the wages were paid for services performed before the enactment of the 1956 amendments.

Employees of State and local governments.—The 1958 amendments make various improvements in the provisions of the law permitting States to provide coverage for employees in positions covered under State or local retirement systems, particularly in the provisions which permit certain specified States to provide coverage for only those members of a State or local retirement system who desire such coverage.

State and local sick-leave payments.—P. L. 85-786 provides that sick-leave payments received by an employee of a State and local government after he reaches retirement age shall be counted as wages if such payments are counted as wages for employees under retirement age. Under previous law, most State and local sick-leave payments were wages before retirement age but not after retirement age if the employee did no work during the pay period.

Partnership earnings in the year of death.—The amendments provide that a partner shall be credited, for social security purposes, with his distributive share of partnership earnings in the year of death. This change will affect relatively few people but will correct an inequity which sometimes resulted from inability to credit a partner with income in the year of death.

Turpentine workers.—Beginning with 1959, services performed by workers engaged in the production of turpentine and gum naval stores will be covered under the conditions applicable to other agricultural workers. While many of the estimated 15,000 workers in this new coverage group are only seasonally or temporarily employed, this new

source of coverage will in many instances supplement the protection they acquire in other covered employment and self-employment.

Americans who served in the armed forces of allied countries.—The amendments broaden the provisions of prior law for gratuitous wage credits of \$160 for months of military service for the United States to include military service during World War II for certain allied countries. Such credits may be granted for the World War II military service of certain American citizens and former citizens, who, before December 9, 1941, entered the military service of a foreign country which was, on September 16, 1940, at war with a country that became an enemy of the United States during World War II. This amendment assures that these individuals will have no gap in their social security coverage because of such service.

Administrative changes.—The definition of fraud under the program was expanded and clarified. The Department was also authorized to charge for services provided the public for non-program purposes to reimburse the Trust Funds. Other changes were made to improve administration.

Advisory Council on Social Security Financing

The first Advisory Council on Social Security Financing, appointed in October 1957 to review the status of the Federal Old-Age and Survivors Insurance Trust Fund and the Federal Disability Insurance Trust Fund in relation to their long-term commitments, held a number of meetings during the year. It was to submit its formal report by January 1, 1959.

To assure that the system will continue to operate on a sound financial basis, these Councils, authorized by the Social Security Amendments of 1956, will be appointed in advance of each scheduled increase after 1960 in tax rate and will report their findings and recommendations not later than the first of January before the year in which the scheduled increase takes effect. The Councils are composed of the Commissioner of Social Security, as chairman, and twelve representatives of employers, employees, the self-employed and the public.

Special Studies Requested by the Congress

The Committee on Ways and Means of the House of Representatives, in connection with its consideration of proposed changes in the Social Security Act, has asked the Department to make three special studies and to report to the Committee on the results. The first of these studies is to be concerned with proposals for covering tips as wages, and, more specifically, with methods of determining the amount of tips to be counted as wages under the program and the method of securing reports of these amounts. Second, the Department is to study, with a

view to possible change, the provision of the retirement test which makes it possible for a beneficiary to receive benefits for some months in a year even though he may have had high earnings during the year. The third study is of alternative ways of providing insurance against the cost of hospital and nursing home care for old-age, survivors, and disability insurance beneficiaries. The Committee's purpose in requesting this study was to obtain more information on the practicability and the costs of legislative action which might be recommended to make such protection available.

Survey of Resources of Old-Age Insurance Beneficiaries

The Bureau conducted a national survey in the fall of 1957 in order to obtain current information about what resources beneficiaries had in addition to their old-age insurance benefits.

According to preliminary findings from the survey, the median independent retirement income of old-age beneficiary couples (both entitled) was \$1,700 in 1957. Single retired workers had about half as much income as the couples; aged widows, a little less than the single retired workers. Forty-four percent of the beneficiary couples and 60 percent of the single retired workers and widows had no independent retirement income in addition to their old-age and survivors insurance benefits, or had less than \$75 for the entire year. The others had additional income from assets, and from miscellaneous permanent sources such as pensions or annuities. Many beneficiaries (35 percent of the retired workers, 15 percent of the aged widows) supplemented their retirement income with earnings from employment; one in ten of the family units (single persons, married couples, and widowed mothers with entitled children) received public assistance. Median income from all sources was \$2,190 for beneficiary couples, \$1,140 for single retired workers, and \$880 for aged widows.

Median net worth of the beneficiaries was \$4,920; a fourth had zero or minus net worth; a fourth had more than \$13,700. Beneficiary couples (both entitled) had a median net worth of \$9,620; single men, \$800; single retired women, \$2,080; and aged widows had a median net worth of \$4,380. Equity in their homes accounted, on the whole, for the greater part of the net worth. Half of the family units owned their homes—72 percent of the beneficiary couples, 32 percent of the single retired workers, and 46 percent of the aged widows. The median amount of liquid assets held was \$1,580 for beneficiary couples, \$220 for single retired workers, and \$460 for aged widows. A fourth of the beneficiary couples, about 40 percent of the single retired workers, and about 40 percent of the aged widows had no liquid assets. Some life insurance, usually only small amounts, was carried by 70 percent of the beneficiary couples and half of the single retired workers.

Program Simplification Project

Considerable progress was made during the year under the Bureau's program simplification project. As a result of the studies conducted of the retirement test and the computation and recomputation of benefits, a number of proposals for simplifying these two complex program areas were developed. Enacted into law as a part of the Social Security Amendments of 1958 were the following simplification proposals: (1) a table for computing benefit amounts replaced the benefit computation formulas, (2) a different order was established for allocating excess earnings to the months of the year for deduction purposes, (3) the amount of wages that could be earned in a month before a deduction could be imposed was raised (from \$80 to \$100) to the monthly rate that is used in computing the annual exempt amount of earnings (\$100), and (4) the requirement for a report of earnings where the benefits payable to the individual were suspended for the entire year was eliminated.

Study was begun on two new program areas in 1958—the coverage provisions for State and local employees and the benefit category of lump-sum death payments.

Financing the Program

P. L. 85-840 modified the schedule of contribution rates so as to continue to reflect the intent of Congress that the system be self-supporting from the contributions of covered workers and employers. A revision of the contribution schedule was arrived at after careful review of long-range actuarial cost estimates prepared for use by the Congressional committees in their legislative considerations. The program, as amended, continues to be financed on an actuarially sound basis.

The difficulties involved in making exact predictions of the actuarial status of a program that reaches into the distant future are widely recognized. If different assumptions as to, say, interest, mortality, retirement, disability, or earnings had been used, different results would have been obtained. Accordingly, no one set of estimates should be looked upon as final. It is the Department's policy continually to reexamine the long-range cost estimates of the program in the light of the latest information available.

Old-age and survivors insurance benefits.—Three important changes made by the 1958 amendments will result in higher income to the system. First, as mentioned previously, there is a uniform $\frac{1}{2}$ of 1 percent increase in the combined employer-employee rate and an increase of $\frac{3}{8}$ of 1 percent for the self-employed for all future years beginning with 1959. Second, the increases in the contribution rates which were scheduled at 5-year intervals in the old law are now ad-

vanced to 3-year intervals. Third, the maximum taxable and creditable earnings base is raised from \$4,200 to \$4,800 a year. Expressed as a level premium percent of payroll, the additional income thus realized will be significantly more than is needed to meet the larger outlays for benefits resulting from the amendments. As a result, the long-range financial basis of the program has been very substantially strengthened.

In addition, the relationship between trust fund income and outgo over the next few years will be significantly improved. Income will be somewhat less than outgo during calendar years 1958 and 1959. Beginning in 1960, income will again exceed outgo—under the old law, outgo was expected to exceed income during most, if not all, years until 1965—and the assets of the trust fund are expected, under the intermediate cost estimates, to increase each year throughout this century and for many years thereafter.

The level premium cost of old-age and survivors benefits on an intermediate basis, with interest at 3 percent, figured into perpetuity is 8.27 percent of payroll. Contribution income is equivalent to 8.02 percent of payroll on a level basis. This leaves an actuarial insufficiency of 0.25 percent of payroll. In view of the very long range over which these projections are made, and the many variable factors included, the insufficiency is so small that the system may be considered in close actuarial balance.

Disability insurance benefits.—The Social Security Amendments of 1956 established a system for financing disability benefits through a separate trust fund which is entirely apart from the financing of old-age and survivors insurance benefits. The level premium cost of the disability benefits, as amended in 1958, on an intermediate basis, with interest at 3 percent, is 0.49 percent of payroll. Contribution income has been specifically allocated to finance these benefits; this income is equivalent to 0.50 percent of payroll, thereby producing an actuarial surplus of 0.01 percent of payroll.

Public Assistance

During 1958 the Bureau of Public Assistance worked closely with State public assistance agencies in further implementing the 1956 amendments to the public assistance titles of the Social Security Act, especially those concerned with helping to increase the capacity of needy persons for more independent living and strengthened family life. Attention also continued to be directed toward efficient administration as an integral factor in maintaining effective and constructive operation of State and local public assistance programs.

In addition, increased efforts were made to learn more about the causes of dependency and other characteristics of persons receiving

public assistance and to evaluate the adequacy of assistance and services available to them. These efforts both sharpened the outline of areas of need and made more clearly visible significant factors contributing to dependency of a relatively small, but important, segment of the Nation's people.

Consideration of some of these and many other related factors similarly claimed the attention of many individuals, organizations, and congressional committees during the year and culminated in revisions of the public assistance titles of the Social Security Act which make possible further strengthening of the assistance and services available to needy persons.

1958 Amendments Affecting Public Assistance

Amendments to the Social Security Act in August 1958 revised the basis of Federal financial participation in State expenditures for public assistance in three significant ways:

(1) For the first time, the fiscal ability of each State is considered in part in determining the Federal share of a State's expenditures for public assistance.

(2) The Federal share is related to a single average expenditure per recipient for both money payments to recipients and vendor payments for medical care.

(3) The amount of State expenditures for public assistance, including medical care, in which the Federal Government will participate is limited to an amount equal to \$65 a month times the number of aged, blind, and disabled recipients in the State and \$30 times the number of recipients of aid to dependent children.¹

Effective October 1, 1958, the formula used in determining the Federal share of State expenditures (except for Puerto Rico, the Virgin Islands, and Guam) is as follows:

For the aged, blind, and disabled the Federal Government pays $\frac{1}{2}$ of payments up to \$30 per recipient, and for aid to dependent children, $\frac{14}{17}$ of payments up to \$17 per recipient.

The Federal share of the remainder of a payment ranges from 50 to 65 percent (depending on each State's fiscal capacity based on per capita income data supplied by the Department of Commerce, except that 50 percent is specified for Alaska and Hawaii) up to an average limitation of \$65, including medical care, per recipient in old-age assistance, aid to the blind, and aid to the permanently and totally disabled and \$30 per recipient in aid to dependent children.²

¹ Provisions of (1) and (3) above do not apply to Puerto Rico, the Virgin Islands, and Guam.

² Previously, the Federal maximum share was determined in relation to payments to each individual recipient and to an average expenditure per recipient for payments to suppliers of medical care. Maximums for individual payments in which the Federal Government shared were \$60 a month for the aged, blind, and disabled; \$32 a month each for the first child and the person caring for him, and \$23 for each additional child in the family receiving aid to dependent children; and an average of \$6 a month per adult recipient and \$3 a month per child recipient for vendor payments for medical care expenditures in their behalf.

These changes (1) increase the amount of Federal funds available to all States for public assistance (2) make possible greater flexibility in meeting individual needs of people and (3) simplify State fiscal procedures for claiming Federal funds.

The additional Federal funds are expected to enable States, especially those with limited fiscal resources, to make more adequate assistance payments and to help achieve greater equity in the level of assistance available to needy persons in different parts of the country. However, responsibility for determining how the additional Federal money is to be used is a matter for individual State determination.

Federal participation in public assistance expenditures is continued on a 50-50 matching basis in Puerto Rico and the Virgin Islands. Limitations on total expenditures in which the Federal Government will participate were revised to relate to average expenditures per recipient as in other jurisdictions but at lesser amounts (\$35 a month per recipient for old-age assistance, aid to the blind, and aid to the permanently and totally disabled, and \$18 a month per recipient for aid to dependent children). The annual limitation on the authorization of Federal funds for Puerto Rico was raised to \$8,500,000 (from \$5,312,500); and for the Virgin Islands, to \$300,000 (from \$200,000).

The public assistance provisions of the Social Security Act now apply to Guam on the same basis as to Puerto Rico and the Virgin Islands. The dollar limitation for Guam is \$400,000 a year.

In addition, special provisions relating to aid to the blind programs in Pennsylvania and Missouri were extended from June 30, 1959 to June 30, 1961; and Federal sharing was provided in payments to persons judicially appointed under State law as legal representatives of assistance recipients whether or not they are the legal representatives of such persons for other purposes.

Provision was also made for establishing an Advisory Council on Public Assistance to review the status of public assistance programs. The Council is to report its findings and recommendations to the Secretary and the Congress by January 1, 1960.

*Trends in Caseloads and Expenditures*³

In June 1958, 6.7 million persons (3.8 percent of the total civilian population) received either federally aided categorical public assistance—old-age assistance, aid to the blind, aid to dependent children, aid to the permanently and totally disabled—or general assistance, which is financed only by State and/or local funds. Aid was received by 800,000 more persons than a year earlier, an increase of 13.6 percent.

³ Caseloads, averages, and total expenditures in all programs except general assistance are based on data which include vendor payments for medical care and cases receiving only medical care.

The largest increases occurred in the number of persons receiving either general assistance or aid to dependent children, the two types of assistance most sensitive to economic change. There was a smaller increase in the number receiving aid to the permanently and totally disabled. The number of blind recipients was virtually the same at the end of the fiscal year as at the beginning. The number receiving old-age assistance, however, continued to decline.

Total expenditures for public assistance from Federal, State, and local funds, including payments for medical care, were \$3,249.7 million during fiscal 1958, an increase of \$280.5 million (9.4 percent over 1957). (See table 6, page 76.) The largest increases occurred in aid to dependent children (\$114.9 million) and in old-age assistance (\$75.0 million). A fifth of the total increase in aid to dependent children and nearly a third of the increase in old-age assistance occurred in one State alone, reflecting both State policy liberalizations and vendor payments under its new medical care provisions. National expenditures rose by \$23.4 million in aid to the permanently and totally disabled, \$4.8 million in aid to the blind, and \$62.4 million in general assistance. The Federal share of total expenditures, excluding general assistance, was 56.4 percent. Assistance payments for the past year represented about $\frac{9}{10}$ of a cent per dollar of total personal income in the Nation during 1957.

Old-age assistance.—Almost 2,500,000 persons, about 1 in 6 persons (16.2 percent) in the country 65 years of age or over received old-age assistance in June 1958. This number was 1.7 percent (43,000) less than the number aided in June 1957. The national average monthly payment per recipient for old-age assistance was \$61.39 in June 1958, an increase of \$2.73 over the previous June. Average payments ranged from a low of \$29.85 in Mississippi to a high of \$106.40 in Connecticut (except for \$8.12 in Puerto Rico and \$18.66 in the Virgin Islands).

Aid to dependent children.—The number of persons receiving aid to dependent children in June 1958 was nearly 2,733,000, the largest number in any month since the beginning of the program, and 334,000 more than in June 1957. This number includes 3.3 percent of all children in the Nation under 18 years of age. The national average payment per recipient in June 1958 was \$27.29, an increase of \$1.25 over the previous June. Average payments ranged from a low of \$8.44 in Alabama to a high of \$45.23 in California (except for \$3.72 in Puerto Rico).

Aid to the permanently and totally disabled.—About 313,000 persons received aid to the permanently and totally disabled in June 1958, or 10 percent more than in June 1957. New programs in California and Texas brought to 48 the number of jurisdictions now

administering federally aided programs for the disabled, and expansion of programs in Illinois and Pennsylvania contributed to the increase of 29,000 persons receiving such aid. The national average assistance payment per recipient in June 1958 was \$60.71, an increase of \$1.61 from the previous June. Average payments ranged from a low of \$29.58 in Mississippi to a high of \$122.57 in Connecticut (except for \$8.73 in Puerto Rico and \$20.39 in the Virgin Islands).

Aid to the blind.—Approximately 108,000 persons received aid to the blind in June 1958, virtually the same as in the previous June. The national average payment in June 1958 was \$66.72, an increase of \$2.85 over June 1957. Average payments ranged from a low of \$36.16 in Alabama to a high of \$113.39 in Massachusetts (except for \$8.03 in Puerto Rico).

General assistance.—The 1,164,000 persons in 418,000 cases receiving State and/or locally financed general assistance in June 1958 represented a 71 percent increase in persons and a 42 percent increase in cases over June 1957. Most of the increase occurred in the winter and spring. Additions to the general assistance rolls in the spring included a number of unemployed persons who had exhausted their rights to unemployment insurance benefits. In April the increase in the general assistance caseload was relatively slight, and in May and June the number of cases dropped 5.1 percent and 2.9 percent respectively. The national average payment in June 1958 was \$61.55 per case, an increase of \$6.66 over June 1957. Average payments ranged from a low of \$11.84 a month per case in Arkansas to a high of \$93.11 in New Jersey (except for \$6.64 in Puerto Rico).

Public assistance supplementing insurance benefits.—Public assistance is used to supplement social insurance benefits in instances where low wages or the length of time worked in covered employment have entitled the beneficiary to receive benefits in an amount which does not meet his basic needs. It is also used to meet special needs, such as medical care, for those whose insurance benefits plus other personal resources are insufficient to meet this additional expense.

The number of persons receiving both insurance benefits and old-age assistance continued to increase during the past year. About 596,500 or 24.2 percent of those receiving old-age assistance in February 1958 received both insurance benefits and assistance payments, compared with 22.2 percent a year earlier—an increase of 116 percent from September 1950. About 20 percent of all old-age assistance payments (approximately \$29.3 million) was made to aged beneficiaries in February 1958 to supplement benefits. The average assistance payment supplementing benefits, however, was a fourth lower than payments to other aged persons, \$49.09 compared with \$64.73. The average insurance benefit received by these aged assistance re-

cipients was \$40.68, or about 70 percent of the average amount paid to all aged beneficiaries.

The 37,200 families receiving both insurance benefits and aid to dependent children represented 5.4 percent of all families receiving aid to dependent children in February 1958 compared with 5.1 percent in February 1957. They received 4 percent (about \$2.9 million) of the total payments to aid to dependent children families. The average assistance payment to families receiving both types of payments was \$78.27, compared with \$102.71 for families not receiving insurance benefits. The average benefit received by these families was \$66.19 or less than half the average benefit paid to all beneficiary families consisting of widows and children.

The extension of benefits under the 1956 amendments to the Social Security Act to totally disabled workers aged 50-64 and to an insured worker's dependent child 18 years of age or older who was disabled before he became 18 had little measurable effect on public assistance programs. Only about 3 percent of those receiving aid to the disabled and 1 percent receiving aid to the blind became eligible to receive such benefits.

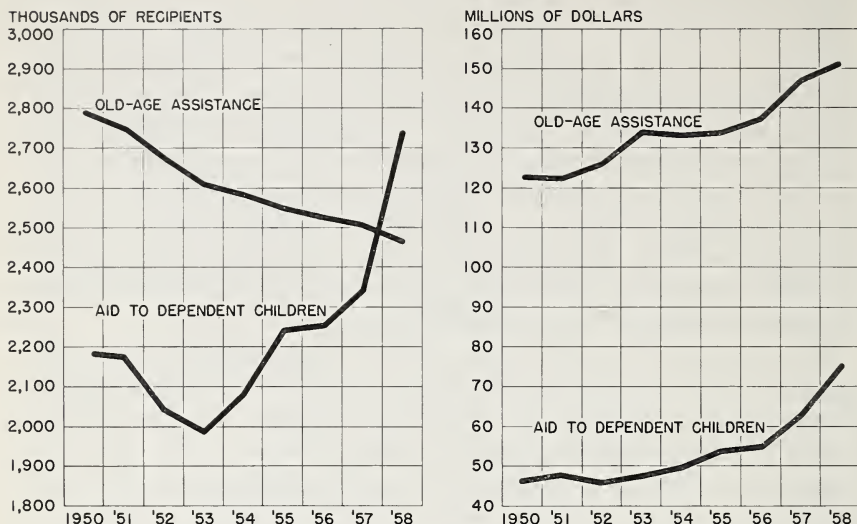
Significant Trends and Their Implications

Trends revealed in the above data have several important program implications. These trends are: (1) a steady decline in the number of persons receiving old-age assistance and a rising proportion receiving assistance to supplement social insurance benefits; (2) a sharp increase in the number of cases receiving general assistance, especially during the winter months; (3) a steady rise in the number receiving aid to dependent children, with this program now aiding the largest number of assistance recipients; (4) a lower total expenditure for aid to dependent children than for old-age assistance, even though the number of persons receiving aid to dependent children is greater than the number receiving old-age assistance; and (5) a relatively larger increase in the average payment per recipient for the aged, in comparison with the rise in average payment per recipient for needy children.

Trends in old-age assistance and aid to dependent children are highlighted in the charts below which depict contrasting trends in the number receiving old-age assistance and aid to dependent children and portray the wide margin between the amount of expenditures for these two programs.

The declining number of aged receiving assistance.—The number of aged persons receiving assistance declined about 2 percent during the past year, and 12 percent since 1950 even though the total number of persons 65 or more years of age increased 22 percent during this

CHART 1.—TRENDS IN RECIPIENTS AND ASSISTANCE PAYMENTS IN OAA AND ADC, OCT. 1950–JUNE 1958



period. As a result, only 16.2 percent of the total aged population received assistance in June 1958 compared with 22.6 percent in 1950.

With nine-tenths of all persons in paid employment now covered by the old-age, survivors, and disability insurance program, it can be expected that fewer and fewer older persons will be dependent primarily on old-age assistance. However, if the past trend continues, an increasing proportion of old-age assistance recipients will probably need to receive assistance to supplement insurance benefits to meet basic or special needs such as medical care.

The trend in the number of recipients of other assistance programs has been upward since 1953, due in large part to population increases, rising costs of living, direct and indirect effects of the recent recession, and to the relatively smaller influence so far of the insurance program on the blind, disabled, and children dependent for reasons other than the father's death.

General assistance on the rise.—The number of persons receiving help under State and/or locally financed general assistance programs increased 71 percent from June 1957 to June 1958. Although the number aided declined in May and June, the 45 percent increase from December 1957 to April 1958 is a significant indicator of the need of unemployed workers who were either not covered by unemployment insurance or who exhausted their benefits and for whom no provision is made under federally aided assistance programs.

General assistance, although available in some parts of all States, is frequently limited to temporarily or permanently unemployable persons. Some States provide no assistance to employable persons

and their families even in emergencies. For example, in February 1958, general assistance was available to employable persons in 26 States on a statewide basis; in 16 it was available in some but not all parts of the State, not even in areas hardest hit by unemployment in 10 of these States; and in 5 the granting of assistance was a matter for local determination. General assistance is financed by State funds alone in 11 States; by State and local funds in 26 States; and by local funds alone in 16 States.

Most general assistance payments were lower than federally aided public assistance payments. Although most States met additional requests for assistance under their current standards for general assistance, many of these standards were extremely low. In some States funds were inadequate to meet need as determined even within these standards.

Perhaps the most profound effect of the recent period of unemployment has been to highlight the inadequacy of many State and/or locally financed general assistance programs to meet need even after Federal legislation extended unemployment compensation benefits. Voluntary welfare agencies and other community groups helping to meet economic need during the winter of 1957-58 have brought into sharper focus the relationship of voluntary and public agencies in the relief area.

Many of these groups have also expressed concern about the hardship of the unemployed in those instances where residence requirements restrict eligibility of such persons for public aid. All but 5 States have residence requirements for old-age assistance; all but 7 for aid to the blind and aid to the disabled; and all but 8 for aid to dependent children. Most have State residence and some also have local settlement requirements for general assistance.

An important argument in favor of residence requirements is made by some States which fear the expense of caring for nonresidents, migratory laborers, for example, for whom they traditionally have assumed no responsibility. Several other States have tried to minimize the restrictive effect of residence requirements through uniform State laws, reciprocal agreements, or interstate compacts.

The increasing role of aid to dependent children.—National economic and social problems are reflected in the gradual upward trend in the number of recipients of aid to dependent children. The number of persons presently aided under this program is nearly 30 percent larger than 4 years ago. As indicated in Chart 1, above, the number receiving aid under this program in December 1957 exceeded the number receiving old-age assistance. In June 1958 aid to dependent children recipients totaled 2,732,800 compared with 2,460,300 old-age assistance recipients.

Other significant long-term factors, in addition to the recent recession, have contributed to this increase. For example, the number of children in the Nation has increased until children under 18 years of age now constitute 35 percent of the total civilian population. There has also been a substantial increase in the number of families and an even greater relative increase in the number of broken families headed by women. Since these families usually have much less income than families headed by men, an increasing number of children in broken families are liable to need financial help.

Death of the father as a cause of dependency accounts for only about 12 percent of the families currently receiving aid to dependent children; in about 22 percent need is due to the incapacity of the father, but in about 60 percent need is related to the absence of a father because of divorce, separation, desertion, unmarried parenthood, or other reasons. However, dependency on public assistance of about a fifth of the Nation's families broken by separation or unmarried parenthood is only a part of the increasing evidence of social problems in all elements of society.

For example, the number of broken families with children under 18 increased from 1.5 million in 1950 to 2.8 million in 1956. Also, the number of children in the total population reported as born out of wedlock more than doubled between 1938 and 1956, rising from 87,900 to 193,500. The Bureau estimates the relative increase between 1938 and 1954 in nonwhite illegitimate births to be 143 percent compared with white illegitimate births of 52 percent. About 70 percent of white children born out of wedlock are adopted, but fewer than 5 percent of nonwhite children. Few adopted children need aid. The nonwhite illegitimate child, who usually remains with his mother, is more liable to be in financial need.

In March 1957 about 1.3 million mothers in the labor force were widowed, divorced, or married but not living with their husbands. Families with a female head have shared to a relatively smaller extent than families with a male head in the general increase in money income in recent years. For example, their median total money income in 1956 of \$2,754 represents a 24.1-percent rise from 1951 compared with a 29.7-percent rise to \$4,965 for families with a male head.

The concentration within the aid to dependent children program of families whose need is often associated with socially disapproved behavior has made this program a ready target for criticism. Although these social problems affect people at all income levels, they are more clearly visible in the causes of dependency of those receiving assistance under the aid to dependent children program.

Experience has shown that dependency of children due to family instability has not been remedied by legislation, administrative regulation, or financial aid alone. However, wider recognition of the

value of increasing efforts by the States to help bring about more desirable adjustments within the family group resulted in 1956 in a Social Security Amendment emphasizing the provision of social services in all the federally aided public assistance programs. Passage of the "services" amendment, in turn, stimulated State agencies to increase their activities in providing social services in their aid to dependent children program to help maintain and strengthen family life and thus give children a better opportunity for health and emotional stability. The aid to dependent children program thus is playing an important part in helping to deal with the problems of children, harassed not only by poverty, but also by illness, incapacity, death or estrangement of parents, or unmarried parenthood.

Program Developments

In addition to providing technical assistance to Congress during their consideration of legislative changes, Bureau effort continued during the year, as in 1957, to further advance implementation of the 1956 amendments. These activities included interpretation of the amendments, issuance of basic policies for use by States, and work on major problems requiring resolution. Fiscal and administrative procedures were developed to effect necessary changes in grants to States, and technical assistance was provided to State agencies for implementing the new legislation. In addition, the Bureau issued information explaining the amendments to interested individuals and groups, and prepared a booklet interpreting social services in public assistance and pointing up the values of cooperative community efforts in providing social services for needy people.

Considerable progress was made also by the Bureau and the States in providing social services to help public assistance recipients increase their capacity for self-care and/or self-support.

STRENGTHENING SERVICES FOR NEEDY PEOPLE

The nature and extent of social services provided by public welfare agencies vary greatly between States, within a State, within a locality, and even between workers in the same agency depending on their awareness, skills, and the acceptance of such practice as an essential part of the effective administration of public assistance. Efforts during the past year, therefore, were increasingly directed toward helping the States to strengthen the services aspects of their programs.

By July 1, 1957 (as required by the 1956 "services" amendment) States had developed descriptions of the services available in their public assistance programs, and of the steps taken to assure maximum utilization of services furnished by other agencies. This process led

the States to a critical evaluation of existing services and planning for their extension and increasing effectiveness on a statewide basis.

These services plans indicate progress in clarifying the services made available by the State welfare agency and increasingly effective utilization of other community resources. Although there is variation between States, certain common problems are recognized in the plans of most States, namely, the effects of financial need, illness, family breakdown, and lack of education and training for employment. These plans also indicate areas needing further nationwide emphasis, such as increasing utilization of such resources as child welfare services within the agency and in the community, and more active participation of the public assistance agency in planning for the development and utilization of new and needed resources in the community. Certain proposals for expanding social services developed by individual States utilizing new and dynamic concepts have identified policy areas requiring further consideration.

The Bureau also continued its efforts in planning for the increasing provision of appropriate social services for needy people. For example, a staff committee of the Children's Bureau and the Bureau of Public Assistance is considering services to families and children under public assistance and child welfare programs as a basis for making recommendations regarding program relationships in areas of service common to both. The Bureau is also represented on an intradepartmental committee to consider the problems of working mothers in relation to programs within the Social Security Administration. In addition, the Bureau maintains liaison with the Child Welfare League of America in developing standards on protective services for children and is represented on the American Public Welfare Association's Committee on Services to Children. Work is continuing to strengthen cooperative relationships between State public assistance and vocational rehabilitation agencies in providing services to needy individuals.

The Bureau is also helping to plan the second National Conference on Homemaker Service to be held in February 1959 under the joint sponsorship of 8 constituent units in the Department and 26 national voluntary social and health agencies. Preconference activities included Bureau participation in planning a Public Health Service survey of existing homemaker services and the development and issuance of a descriptive directory of agencies providing homemaker and related services in 1958. State and local public welfare personnel are also serving on most of the study groups organized in various parts of the country to develop basic work materials for the Conference.

Bureau staff also worked closely with the Public Health Service in efforts to improve nursing homes and institutional care for the

aged. For example, it participated in the National Conference on Nursing Homes and Homes for the Aged called by the Public Health Service in February 1958. It is also planning for implementing the recommendations made at this conference, including regional meetings that will assist both the personnel of licensing agencies in improving their educational and consultative services to nursing homes and homes for the aged, and personnel of welfare agencies in improving their services to individuals requiring care in these homes.

The Bureau's interest in the aging is also reflected in many other activities, including membership on the Social Security Administration's Committee on Aging; participation in the Social Security Administration's representation on the Department's Committee on Aging; and collaboration with American Public Welfare Association committees in developing statements on social service needs of older people, community planning responsibilities of public welfare agencies, and the educational needs of staff working with aged persons. Similarly, it participated in the various activities of the National Social Welfare Assembly's Committee on Aging. The Bureau is currently developing a statement of its program responsibilities in the field of aging and is planning to participate in the Department's preparation for the White House Conference on the Aging authorized by Congress under Public Law 85-908.

Improvement in medical care for public assistance recipients.—Separate Federal matching in vendor payments for medical care provided under a 1956 amendment effective July 1, 1957, required extensive planning and preparation on the part of both Federal and State agencies during the year. At the Federal level discussions were held with representatives of various groups to interpret the amendments and to get the benefit of their specialized knowledge and suggestions for implementation.

By June 30, 1958, 41 State agencies in 37 different States were providing medical care with Federal participation through vendor payments for one or more categories of federally aided public assistance, including 17 agencies which previously made no vendor medical payments, and 4 States that had made such payments in 1 or more programs but now extended them to other categories. Nursing-convalescent home care was the item included most frequently for adult categories as of January 1958; and drugs, the item most frequently included in the aid to dependent children program. Nursing services provided by registered or practical nurses other than those made available in hospitals and nursing-convalescent homes was the item supplied least often. States used the vendor payment method more often for hospitalization than for other items of medical care.

Vendor payments for medical care made in behalf of recipients of federally aided public assistance programs totaled \$21.6 million in June 1958 and \$236.1 million for the fiscal year 1958.

RELATED SOCIAL WELFARE ACTIVITIES

In addition to administering the public assistance provisions of the Social Security Act, the Bureau carries other broad public welfare responsibilities on a nationwide basis. These include, for example, planning for defense emergency welfare services and services to repatriated American nationals and to refugees from other parts of the world. In addition, Bureau staff take an active role in international social welfare developments.

Defense welfare services.—Although activities were suspended on Federal Civil Defense Administration delegations with the termination of supporting appropriation on June 30, 1957, the Bureau participated in Operation Alert 1958 and continued limited activity in planning for emergency organization and operations during a disaster. These included preparation of materials for protecting essential records, delegations to the field, lines of succession, and self-triggering regulations and guidelines for implementation of field delegations. With possible additional delegation of functions from the new Office of Civil and Defense Mobilization under Reorganization Plan No. 1 of 1958, and an allocation of limited funds, consideration is being given to possible resumption of a broader range of defense planning activities.

Services for repatriated Americans.—The Bureau continued its cooperative activities with the Department of State in arranging for assistance and services needed by repatriated American nationals. Although Federal funds are not available for this purpose, the Bureau, through its regional staff, enlists various community resources in providing essential reception services at ports of entry, contacting relatives and friends, arranging for needed hospital or medical care, or providing temporary financial aid or help with family relationship problems. During the year such help was requested for 40 persons repatriated from 20 countries.

The Bureau also continued its work with the Department of State and Department of Defense in developing a legislative proposal for a program to cover both repatriation of American nationals from abroad during a national emergency and peacetime repatriation needs. An Interdepartmental Ad Hoc Committee on Repatriation of American Nationals, inactive since 1954, was reconvened at the request of the Department of the Army to assess the status of these plans and to determine needed next steps.

Services to refugees.—Following active participation in the temporary program of the President's Committee on Hungarian Refugees, the Bureau evaluated the most effective ways, in relation to our na-

tional interests and safety, of making income maintenance programs applicable to the specific needs of refugee and immigrant families. From this experience the Bureau also contributed to the Departmental Task Force report on refugees and immigrants in outlining the Department's potential role in this area.

International activities.—The Bureau participates in the training, reporting, and policy development activities of the International Service of the Social Security Administration.

The Bureau Director continued to serve as chairman of the Interdepartmental Committee on International Social Welfare Policy and Bureau staff participated in the preparation and review of technical materials for use at the United Nations and other international meetings. The Bureau Director served as one of two vice chairmen of the United States Committee of the International Conference of Social Work, which held its biennial meeting in Tokyo in November 1958. Bureau staff also assisted in developing the United States exhibit for this conference.

Bureau staff in regional offices provided consultation and planned or arranged observation programs in cooperation with State and local public and voluntary welfare agencies for visitors from 66 different countries during the past year. In the central office staff specialists provided consultation to foreign visitors and to international groups referred by various U. S. Departments, such as the labor leader teams referred by the Department of Labor; and also assisted in orientation sessions for foreign visitors at the American Council on Education's International Center in the District of Columbia.

Bureau staff also make a substantial contribution to the preparation of United States material for the United Nations biennial surveys of programs of social development. This year, in addition to sections on public assistance and related services, sections were prepared on organization and administration of public social services, training of social welfare personnel, public administration and social development, and social welfare measures relating to urbanization.

Administrative Developments

During the year special attention continued to be directed toward a more effective and efficient administration of public assistance programs as well as improving Bureau administration and management.

The study, "Federal Participation in Administrative Costs of State and Local Administration of the Public Assistance Programs," which explored numerous factors relating to questions raised by Congress, gave assurance that the Federal Government participates only in those costs that are essential for proper and efficient administration of State public assistance programs.

The findings of the study also pointed up the importance of the relation between administrative costs and the social service functions of a public welfare agency and clarified areas in which further guide materials and technical assistance are needed by the States. This gave new impetus to work already initiated in such areas as case recording, organization and staffing patterns of local agencies, and workload management; and provided the basis for planning several regional conferences to be held during the coming year for joint exploration of these areas with the States. The Bureau also has been keeping in touch with experimental projects undertaken by some States to evaluate the effect of selected staff carrying limited caseloads, especially in the aid to dependent children program.

The evaluation of staff needs and long-range planning for staff development initiated by the States in anticipation of Federal funds under the 1956 "training" amendment, plus the pressing need of States for skilled staff, has motivated a series of significant developments.

Some States made funds available for staff-development personnel, educational leave, or other training needs. For example, 44 States had staff development personnel in December 1957 compared with 14 States in 1950. Many States made progress in strengthening line staff, identifying knowledges and skills needed for staff services, and clarifying the staff-development function. Many States also developed orientation or induction training plans and held short-term courses to increase supervisory and administrative staff skills.

Similarly, most States made efforts to improve the educational level of staff, since only about 1 of 5 public assistance workers have some professional social-work training. About 475 staff were granted educational leave in 1958 in comparison with 325 in the previous school year. Also, study of education and experience of current staff resulted in some States raising educational requirements for beginning positions; others intensified staff recruitment; and some are considering readjustment of salary scales in order to retain personnel with professional training.

Several States reported greater success in recruitment campaigns because of higher salary scales, improved benefits, and more frequent merit system examinations. To meet the need of rising caseloads or new or expanded medical care programs, or to reduce the number of cases per worker, 46 of the 59 State agencies administering one or more public assistance programs had larger State or local staffs in June 1957 than a year earlier (an increase of 1,400 to a total of 66,500). However, while 35 agencies reduced caseloads, the 15 agencies which increased cases per visitor indicated they were unable to add more staff because low salaries limited their ability to compete in the labor market.

Although progress made in staff training has been significant, progress to the extent needed to develop enough competent staff is seriously hampered by lack of funds to implement the training program passed by Congress in 1956, and undoubtedly will retard the provision of services directed toward self-support, self-care, and strengthened family life—prime objectives of public assistance programs in 1958.

In general, public assistance activities in 1958 have made significant strides in providing essentials of living and other needed services for many needy individuals and families in the country. However, the realization of the fullest potentials of the public assistance programs, even within existing legal and administrative framework, provides a challenge in the years ahead in order to utilize their inherent strengths in helping to build strong family life in America.

Children's Bureau

For the 47th year, the Children's Bureau continued to reflect in the Federal Government the Nation's special concern for its most cherished human resources. It operated, first, under its original mandate from Congress in 1912 "to investigate and report upon all matters pertaining to the welfare of children and child life." Secondly, in its responsibility under Title V of the Social Security Act of 1935, the Bureau administered grants to the States totalling \$41,500,000 to assist them in extending and improving health and welfare services to children.

To implement its overall concern for improving the conditions under which children are born and grow, the Bureau made studies and reports, worked cooperatively with a wide range of public and voluntary agencies, helped create guides and standards for services, and administered the grants voted by Congress for maternal and child health, crippled children and child welfare services.

A major step forward, following the close of fiscal 1958, was the enactment of new amendments to the Social Security Act. These amendments authorize an increase of \$5 million in future appropriations for each of the three grant programs administered by the Children's Bureau:

Maternal and Child Health Services: from \$16,500,000 to \$21,500,000.

Crippled Children's Services: from \$15,000,000 to \$20,000,000.

Child Welfare Services: from \$12,000,000 to \$17,000,000.

Other changes, all relating to child welfare services, include:

1. For the first time, child welfare services are authorized for children in urban areas on the same basis as services for rural children.
2. A revision of the formula for allotment of Federal funds so that grants will be in direct proportion to total child population and in

inverse proportion to State per capita income. However, no State will receive less than the amounts it would have received prior to the amendments, with an appropriation of \$12,000,000.

3. A new requirement by which State and local funds must match Federal child welfare funds, beginning with fiscal year 1960.

4. Broadening of provisions on runaway children, to increase the age limit from 16 to 18 and to permit using Federal funds for maintenance up to 15 days pending their return.

5. Authorization to reallocate Federal funds when a State certifies it will not need them to carry out its child welfare program.

6. A new section establishing an Advisory Council on Child Welfare Services. The Council will report findings and recommendations to the Secretary and to the Congress on or before January 1, 1960. The Council membership, appointed by the Secretary, will consist of 12 persons, representing public, voluntary, civic, religious, and professional welfare organizations and groups, and the public.

Effective July 1, 1959, Guam will be included in all of the grant programs.

Some Facts and Figures About Parents and Children

Live births in the Nation continue to be above 4 million annually. Since 1950, crude birth rates have remained about 25 per 1,000 population and fertility rates in relation to women of child-bearing age have continued to increase. Women in this age group in 1957 had borne 22 percent more children, on the average, than women of the same age range in 1950. Increases in fertility have been greater in urban than in rural areas, among nonwhite than white population, and among the low or middle income than the high income groups.

The number of children under 18 rose from 47 million in 1950 to an estimated 59 million in 1957, an increase of 27 percent, while adults in the age group 18 to 64, to whom children look for support, increased by only 5 percent. Children now constitute 35 percent of the total population.

The death rate for infants under 1 year per 1,000 live births moved up slightly in 1957 for the first time in 22 years. The rate was 26.4 compared with the 1956 figure of 26.0, the lowest rate ever recorded.

Maternal mortality continued its steady decline, with only 3.9 maternal deaths per 10,000 live births in 1957.

For children above 1 year, accidents, cancer, congenital malformations, influenza, and pneumonia are still the most frequent causes of death.

Births out-of-wedlock rose again in 1956 to 193,500. The ratio per 1,000 live births increased to 46.5, and the rate per 1,000 unmarried women, aged 15 to 44 years, was 20.2. About 77,000 unmarried mothers were under 20 years of age.

In March 1957, about 7 million mothers with children under 18 were in the labor force. They were about 28 percent of all mothers with children of this age. Nearly 2.6 million of them had children under 6. About 1.3 million were widowed, divorced, or married but not living with their husbands.

In 1957, more than 58 million children under 18 were living in family homes—their own or relatives' homes. About 390,000 were living in foster family homes, in institutions, in boarding houses, or in other unrelated households.

The number of broken families with children under 18 has increased from 1.5 million in 1950 to 2.8 million in 1956.

Juvenile court delinquency cases more than doubled between 1948 and 1956. In that year an estimated 450,000 different children, or 2.2 percent of all children aged 10 through 17, were referred to courts in the United States for delinquency. Preliminary data for 1957 indicate further increase to about 520,000 children. The recent increases, both in juvenile court delinquency cases and in police arrests of children, are much greater than can be accounted for by population increases or better reporting procedures.

Preparation for the 1960 White House Conference on Children and Youth

In May 1958, the President announced March 1960 as the date for the Sixth White House Conference on Children and Youth, and asked the Secretary of the Department of Health, Education, and Welfare to invite State and Territorial Governors to appoint special committees to begin a State-by-State stocktaking on problems of the young. Such a conference has been held every 10 years since President Theodore Roosevelt convened the first in 1909.

The President asked the Children's Bureau to serve again as the focal point in the Federal Government for the conference planning and Congress appropriated \$150,000 for development of a Conference staff in the year ahead. The actual theme and scope of the Conference will be determined by a national committee named by the President.

In advance of such steps, the Children's Bureau, during the year, sought to lay groundwork for the 1960 Conference by consulting with various professional groups—physicians, educators, and social workers, to learn of their interests in the Conference planning and program. In September 1957, advance suggestions had been sought in a meeting of representatives of three national groups—the Council of National Organizations, the National Council of State Committees on Children and Youth, and the Interdepartmental Committee on Children and Youth.

Federal Interdepartmental Committee on Children and Youth

In the decade since this Committee was formed, the Federal agencies participating in it to coordinate their interests and activities for children have increased from 11 to 34. Subjects of special interest during the past year included: need of rural youth; radiation, as it affects children; urban renewal programs; and a special report on Soviet children by a member of the United States Mission to that country.

A Special Committee was formed to provide for Federal agency participation in the 1960 White House Conference on Children and Youth.

Continuing its close working relationship with the National Council of State Committees for Children and Youth, the Interdepartmental Committee again cosponsored the Joint Conference on Children and Youth in Chicago in March. Attending were representatives from 25 State Committees and 100 national organizations.

In June, 22 Federal agencies joined in a seminar, sponsored by the Interdepartmental Committee, on the reasons why many adolescents fail to get along in school and the ways in which Federal agencies can assist local efforts to help them.

Programs of the Bureau

RESEARCH IN CHILD LIFE

The Bureau's research staff has a major responsibility for carrying out the mandate "to investigate and report upon all matters pertaining to the welfare of children." In addition to conducting its own studies and cooperating in joint studies, the Bureau stimulates other agencies to undertake research in child life by formulating the questions requiring study, developing research methods, and providing technical advice and assistance.

A prime emphasis in the Bureau's technical research has been the development of methods of measuring the effectiveness of programs designed to deal with some of the current pressing problems in child life. A study on evaluation of casework and other social services has been completed. Various approaches to gauging the effectiveness of official programs for juvenile delinquents have been examined to determine the most promising line of research in this field. The Bureau has reached the final stage of a joint study, with the Florida State Department of Public Welfare and the Russell Sage Foundation, to assess the outcome of independent adoptions and, as a byproduct, to discover the factors associated with successful and unsuccessful placement of children for adoption.

During the year the Bureau, with the cooperation of the State departments of public welfare, the Child Welfare League of America, the Family Service Association of America, and their constituent agencies, has been studying the reasons for the large number of staff losses in operating agencies, in an effort to improve administration. To get some of the basic facts concerning maternal and child health, particularly the handicapping conditions of childhood, plans were made for several studies to be conducted in conjunction with the National Health Survey. Factfinding studies were planned also on the nature and extent of public child welfare services for mentally retarded children, the effects of maternal employment on children, and, in cooperation with the National Probation and Parole Association, on court probation services for children.

The Bureau compiles and publishes statistical data received from State agencies administering the maternal and child health, crippled children's, and child welfare grant-in-aid programs. It also publishes certain statistical data on voluntary child welfare services, the work of juvenile courts and public training schools for juvenile delinquents, and on child adoption. These reports are occasionally supplemented by special statistical analyses, such as *Crippled Children's Program, A Statistical Review*, and *Financing Public Child Welfare Services*, both published during the year.

As part of its research interpretation activities, the Bureau has been exploring channels through which the findings of research in child and family development, parent-child relationships, and mental health in family life can be more effectively shared with the public and has encouraged interdisciplinary discussion of problems in parent education requiring further study. A revision of *Prenatal Care*, one of the series of publications for parents on child growth and development, has been started. Two issues of *Research Relating to Children*, an inventory of current research in child life to keep investigators mutually informed, were published during the year.

MATERNAL AND CHILD HEALTH SERVICES

All of the States, the District of Columbia, Hawaii, Puerto Rico, and the Virgin Islands receive Federal funds to extend and improve services for promoting health of mothers and children.

For the fiscal year 1957-58, Congress increased the appropriation for maternal and child health to \$16,500,000 and earmarked \$1,000,000 to be used only for special projects for mentally retarded children.

Ongoing programs of the State maternal and child health agencies continue to make a major contribution to the health of the Nation. State maternal and child health reports show that about 241,000 moth-

ers received services at maternity medical clinics in 1957. In addition, health nurses served over 447,000 mothers before or after delivery.

About 558,000 infants and 768,000 other children received health supervision through well-child clinics. In addition, health department programs provided nursing service for over 2,878,000 infants and other children.

Almost 1,715,000 children were vaccinated for smallpox, and nearly 3 million were immunized for diphtheria by State and local health departments through grants provided by the maternal and child health programs. Polio immunization through these programs reached 11,809,000 children.

Continued emphasis on services for mentally retarded children resulted in the development of 44 State programs with a total allocation of about 2 million dollars. Each of these is operated as part of the State health department's mental and child health program, 30 are financed by Federal funds for special projects, and 14 are supported by the States' regular MCH funds.

Progress was made in extending geographically and in improving services for mentally retarded children by continued recruitment and training of professional staff, by better integration of services for the mentally retarded into overall MCH programs and into other community facilities. Clinic teams were enlarged and better administrative practices adopted in order to reduce the backlog of cases awaiting diagnostic evaluation. Several States inaugurated plans for early detection and treatment of specific causes of mental retardation, such as phenylketonuria, in which prevention is possible.

Two national conferences with significance for future program development were held. One conference of MCH directors and directors of clinical services for mentally retarded children representing 50 States and Territories recommended that a committee be established to advise the Children's Bureau on how the experiences of the various State programs could be exchanged for the benefit of all. The second was an institute of professional workers on nutrition and diet in relation to mental retardation, probably the first of its kind.

A third important conference for public health nurses working in special projects for mentally retarded children discussed home training programs. In addition, a number of statewide conferences and workshops for nurses, physicians, and other health personnel were held.

Material for a manual on "Home Training" of mentally retarded children was completed; also "Newer Concepts of Mental Retardation in Medical Care Programs for Children," the report of the 1957 institute of the Tulane School of Social Work was issued.

Maternal and neonatal mortality rates in scattered areas and among certain groups sparked fresh interest and activity in maternity care in a number of State programs.

In July 1957, the 7th American Congress on Maternal Care, sponsored by the American Committee on Maternal Welfare was held, with participation by many Children's Bureau staff members and State MCH directors. The keynote, "Complete Maternity Care," expressed a broadened concept of maternity care. The year ended with a work conference on the nurse-midwife, her role and training, sponsored by the Maryland State Health Department in cooperation with the American College of Nurse Midwifery and the Children's Bureau, and financed by a Children's Bureau grant.

Concurrent with increasing numbers of hospital deliveries, overcrowded and inadequately staffed nurseries and increased use of antibiotics, has been the emergence of antibiotic-resistant staphylococcal infections. The epidemics in hospital nurseries were of particular concern to maternal and child health programs. One beneficial effect of these has been a closer working relationship between hospitals and health departments and an increase in hospital consultation to maternity and newborn services by maternal and child health personnel. The number of States starting perinatal mortality studies, usually in cooperation with medical societies and hospitals is increasing. The community obstetrical study which began in the hospitals of Hartford, Connecticut, has expanded to include hospitals of Hartford County. Some significant statistical information on medical care given to maternity and newborn patients is being collected.

Increasingly, health agencies are recognizing the potentialities of parent group education. In-service training programs for the preparation of staff in leadership skills were held in New York State, Massachusetts, and Texas.

Adaptation of services to the health needs of migrants was evident in the special migrant project in Florida. There, family clinics are held during evening hours after the field work is finished. Mothers and fathers are seen by a general practitioner, while a pediatrician examines the children. Preclinic planning sessions and post-clinic conferences are features of the service. A project worker, acceptable to both professional staff and migrants, acts as a liaison. "Colorado Cares," a color film on community organization for migrant workers, was developed by the Colorado migrant project.

Because accidents are the chief cause of death in children from 1 to 18 (up to 25) years, and because the pain and disability from accidents affects a much larger number of children, MCH and Crippled Children activities in accident prevention and poison control are increasing. Not only are MCH funds going into these programs,

but CC agencies are cooperating in preventive programs as well. In a number of States, health educators have been assigned to MCH divisions to assist with this activity. In at least two regions, conferences on accident prevention, sponsored by Public Health Service, in cooperation with Children's Bureau, were held.

Interest in developing health services for adolescents is growing. A clinic for children 12 to 18 years of age at Colorado General Hospital, conducted by the University of Colorado Department of Pediatrics, was approved as a special project. Clinic services (pediatric, nursing, medical social, nutrition, psychiatric, and remedial reading) are being coordinated with the school health program; objectives will be service, training and research.

The Children's Bureau, Office of Education and Public Health Service are represented on the Department Committee on Health of the School-age Child. Each agency has responsibilities and interests in the development and promotion of school-community health programs.

Ever since the inauguration of health services for children under the Social Security Act, the Division of Health Services has stressed the importance of early casefinding among children. This position has been reinforced during the last year by the National Congress for Parents and Teachers, which in the future will emphasize the importance of health supervision and medical care from infancy throughout the school years.

CRIPPLED CHILDREN'S SERVICES

All of the 53 States and Territories, with the exception of Arizona, are participating in the Crippled Children's program. Though the State agency auspices vary, the objective is uniform, namely: to locate children who require care, and to provide restoration through diagnosis, medical and surgical treatment, and alleviation of unfavorable social and psychological influences which adversely affect the degree and duration of the disability. The appropriation for Crippled Children's Services is \$15,000,000, the amount authorized.

A new peak was reached in 1957 in the number of handicapped children served under federally aided programs, preliminary figures from State reports indicate. Of the 313,000 children cared for during the year, 246,000 were seen in clinics; about 66,000 received physician's services through home or office visits. About 52,000 children were hospitalized. Convalescent home care was given to the smallest group, around 3,700.

As States attempt to more adequately meet the needs of handicapped children, they are moving toward the concept of child-centered, rather than disease-centered programs, and are giving more comprehensive service to each child and his family. Examples of

coordination of services to children with many types of handicaps are the children's diagnostic and rehabilitation center programs at the Universities of Kansas and Buffalo, New York. Two centers in Maryland, at Johns Hopkins University and the University of Maryland, have been developed to serve children with multiple handicaps. Neurological aspects of handicapping conditions are receiving increased attention at each of these centers as elsewhere in this country.

The trend of States to accept children with chronic illnesses which require long continued medical management rather than surgery or appliances is continuing. Begun in 1940 with the rheumatic heart disease program, it has been further extended by the inclusion of cystic fibrosis, nephrosis and similar chronic diseases by a number of States.

Progress in research in prostheses for child amputees continues through special projects at the University of California at Los Angeles, and the Child Amputee Center at Grand Rapids, Michigan, where children with more and more difficult amputations are being fitted and trained. In addition, a special project to be conducted by New York University for Field Studies in Prosthetic Rehabilitation of Children was approved this year.

At present, 30 States are voluntarily reporting services to child amputees under the crippled children's program to the Children's Bureau. An increasing number of States are able to care for their own cases as amputee teams are trained at the California, Michigan, or New York University Amputee Centers and special clinics for child amputees are opened.

In Pennsylvania, an important study of hearing impairment in school-age children was begun with Crippled Children's B funds, as a joint undertaking of the University of Pittsburgh and the American Academy of Ophthalmology and Otolaryngology. Crippled Children's B funds also support studies of profoundly deaf preschool children at the John Tracy Clinic.

Services to children with speech and hearing defects continue to expand.

Surveys in local areas indicate that the number of children with congenital heart disease is much larger than formerly estimated. Among State crippled children's program, the congenital heart program is one of the most rapidly growing. An increasing number of States are now able to provide heart surgery within their own State. For patients needing more advanced heart surgery and those in States without facilities, regional heart centers have been established in five States: California, Illinois, Maryland, Minnesota, and Texas.

More than 10,000 children suffering from congenital malformations of the circulatory system were served by crippled children's programs

in 1957. This is about five times the comparable number for 1950. The number of States accepting children with congenital heart disease has steadily increased. Factors which have contributed to this growth, include: (1) the brilliant and rapid advances in heart surgery within the past decade, making repair possible in many types of congenital heart defects; (2) the widespread development of heart centers as diagnostic and surgical teams are trained; (3) the return of children with previous anastomotic operations for closure of shunts and correction of the original defect; (4) increasing public and professional awareness that many types of congenital heart disease are now amenable to treatment; and (5) high cost of care.

Because progress has been so rapid, the regional heart program has had difficulty keeping step. Since the bulk of patients apply to the regional center performing the most advanced heart surgery, the facilities for that center have become overcrowded.

CHILD WELFARE SERVICES

Child welfare services are experiencing the effects of broad and significant technological and sociological changes, of new developments in social work, and of new interest and demands on the part of the public. The child welfare staff of the Children's Bureau strives continuously to provide help and leadership as major changes in our culture and society have effect on children.

Some of the immediate areas of expanded public concern are the care of children while mothers work; the problems of mentally retarded and emotionally disturbed children; increase in neglect and abuse of children; expansion and changing practices in the field of adoption; care and protection of children in disadvantaged groups such as migratory families, Indian children and low income families; and the pressing need of adolescent boys and girls to find guidance and security essential to their maturing in these times when the only sure thing is change.

During 1957, the overriding emphasis in child welfare has been on deeper understanding of what a child's own home means to his well-being and growth. Staff development programs are being focused on early recognition of problems of children and on work with parents. Several States report more "reaching-out" services by agencies to serve multiproblem families. Studies of children in foster care are being made to determine whether more adequate diagnosis, plus services to families, might have averted placement and whether return to their own homes may now be indicated for some children.

A forward step in strengthening families is the progress being made in providing protective services to neglected or abused children. The Children's Bureau has given consultation to both public and private

agencies engaged in protective services and is currently cooperating with such national voluntary agencies as the Child Welfare League of America, and the American Humane Association, Inc., in developing definitions, standards and guides to improve practice.

With an increasing number of women in the labor market, there is new emphasis on day care as a service to enable children to continue living at home, even though they need several hours of care away from families each day. In some States, agencies having child welfare responsibility are operating day care facilities. In other States, such agencies have been given authority to license day care facilities, with emphasis on consultation and stimulation rather than on enforcement.

The Children's Bureau is taking steps to find out more about the effects of employment of mothers on children. At the Bureau's request, the Census Bureau's current population survey for one month included a series of questions for enumerating the children whose mothers work and the kinds of care arranged during the mother's absence. The Bureau is also working with the Department of Labor in evaluation of day care needs. Within the Department of Health, Education, and Welfare, the Bureau of Public Assistance, the Bureau of Old-Age and Survivors Insurance, and the Children's Bureau are in active cooperation on a Committee on Working Mothers.

Homemaker Service is receiving increasing recognition as a basic part of the community program for health and welfare, for strengthening family life, and for assisting parents in caring for children in their own homes. Significantly, this service is now being used in a wide variety of situations in contrast to its single original purpose of furnishing temporary care of children during the absence of the mother. Agencies may now use it to relieve mothers from constant care of a handicapped child, for continuing care of a motherless family while the father works, or to teach parents ways of giving better care to their children.

In 1942, Homemaker Service was found to be available in only 41 agencies in 28 cities. The 1958 Directory of Homemaker and Related Services shows the service available in 145 agencies in 104 cities and 32 States and the District of Columbia. Consultation from the Children's Bureau has been used by both types of program.

The Children's Bureau has initiated plans for a National Conference on Homemaker Service to be held February 10-11, 1959. Because of their shared interest, seven other constituent units of the Department of Health, Education, and Welfare were asked to join in sponsorship of the Conference. Twenty-six national voluntary agencies, whose member agencies either administer, support, or have promoted homemaker service programs, also agreed to sponsor the Conference.

Along with increasing effort toward strengthening families to better

care for their children, there is recognition that there will always be some children for whom alternate care must be planned. The estimated number of children in foster care reached an all-time high of 268,000 in 1957. While this represents an increase of 8,000 children over the estimate for 1956, the proportion of children in foster care out of the total child population remained the same. In contrast, the proportion of children in foster care declined from 496 per 100,000 children in the 1933 population to 414 per 100,000 in 1956.

More and more emphasis in foster care is toward better diagnosis at intake so as to permit more adequate planning and avoid placement of children if services can strengthen their own homes. When a child must be placed away from home, sound diagnosis would help to determine care according to each child's specific need.

In institutional care, the primary question seems to be whether the right children are coming for care or whether children are coming for care because community and foster family services are not available. In general, institutions are slowly moving their infants and preschool age children out into foster family care. Many institutions are carefully "retooling" to give skilled care to emotionally disturbed children.

Much interest is being shown by agencies, institutions and licensing staff in the development of agency operated "group homes." These are being used for adolescents, certain emotionally disturbed children, unmarried mothers, and others. Entering this new field, agencies are interested in developing criteria for intake, examining special uses and limitations, and weighing costs. From consultation and work with State and local child care agencies, came much of the material for "Child Caring Institutions—Their New Role in Community Development of Social Services," a recent Bureau publication.

In the field of adoptions, the Children's Bureau has continued the project undertaken in 1957 to bring together representative professional groups to work toward clarification of their various roles in adoption. A report of a meeting of social workers, held in 1957, with a statement of the social worker's role, is now being published. A meeting of physicians was held in November 1957, and another with lawyers in May 1958. The statements of the roles of these two professions are almost completed.

Amendments to the Immigration and Nationality Act in 1957 provided for the issuance of special non-quota immigrant visas to eligible orphans under age 14, adopted or to be adopted by United States citizens. Immigration and Naturalization Service of the Department of Justice was made responsible for determining that satisfactory assurances have been given to the Attorney General that the new parents will accept care for the child properly and that preadoption requirements of the State where the child will live have been met.

Since the amendments, the Children's Bureau has worked closely with Immigration and Naturalization Service and with national voluntary agencies such as International Social Service, United Hebrew Immigrant Aid Society, and Catholic Committee for Refugees, to implement services to children brought into this country for adoption.

With proxy adoptions of foreign children believed to be on the increase, there are continuing reports of the breakdowns of many of these adoptions and tragedies for the children, adoptive parents and natural parents.

Growing public understanding of both the capacities and special needs of mentally retarded children and the expansion of community resources to meet these needs are major factors contributing to the emphasis on rehabilitation services for this group. As more retarded children are enabled to remain in their own homes or foster homes, professional casework help is being widely recognized as a vital need in building the social and emotional well-being of the total family. With a trend away from long-time custodial care, institutions are coming to be regarded as training resources. These changing concepts point up the importance of individual evaluation and planning for each mentally retarded child and the responsibility of the child welfare field for strengthening casework services and community planning.

Activities of national and State welfare organizations are demonstrating that social services are an essential part of a multidisciplinary approach to the needs of retarded children. Some professional schools of social work are making student field work placements in services for the mentally retarded and sponsoring summer institutes in their area.

The Bureau's Social Services Specialist for Mentally Retarded Children has conducted workshops and institutes in Utah, Colorado, Missouri and Kansas for social workers, for professional personnel in health, education, recreation, and related fields; and for parents and interested citizens.

Continuing attention is being given to the needs of the children of migratory farm workers in a number of States. These needs are intensified by such factors as a family's remoteness from friends, relatives, and resources; low, irregular, and unpredictable income; denial of aid because of residence requirements, etc.

During the long working hours of the parents, the service most widely needed by migrant children is day care; however, whenever social workers have worked on day care facilities for migrant children, they have found that multiple child welfare services were needed. These include foster family care for young infants; counseling and aid to unmarried mothers and their children; adoptive placement; protective services for children who are neglected, abused, abandoned or

exploited; and services to unattached teenage children traveling unsupervised in the work group.

In Pennsylvania and Ohio, combined State, local and Federal child welfare funds have been used to develop and operate day care centers for migrant children.

Because of the establishment and strengthening of all child welfare services in each State, the Children's Bureau has added a specialist on child welfare legislation to lead and assist in developing guides to standards for State child welfare legislation.

The shortage of professionally trained personnel has stimulated activity in breaking down some of the barriers to staffing in State agencies. In addition to increased educational leave, a number of States have been working on a variety of recruiting plans. The percentage increase in the amount budgeted for professional education in 1958 reflects a significant move by the States to step up their efforts to obtain better qualified staff and thereby improve services. The Bureau has issued a revised guide for educational leave policies in State public welfare agencies.

JUVENILE DELINQUENCY SERVICE

With reports showing an increase in youthful offenses, juvenile delinquency continues to be one of the major social problems in the country.

Public interest in the problem of juvenile delinquency remains high. Many local welfare planning councils are including study of juvenile delinquency in the range of social problems with which they are concerned. At the same time, they are giving support to State and metropolitan youth commissions by identifying gaps in delinquency-related services and encouraging improved coordination and cooperation between them. In many cases they are helping to finance demonstration projects sponsored by some of their members, especially those involving services to organized groups of hostile, delinquent youth.

Many State, county, and city governments have assumed greater responsibility for stimulating and integrating State and community efforts to combat delinquency. They are, for example, establishing or extending official planning bodies and offering consultant services to communities to help them study and develop solutions to youth problems.

As a result of recent court decisions and law journal articles, the legal rights of children and parents appearing in juvenile courts are receiving increased attention. Such questions as the right to counsel and a fair hearing, parental liability, and publicity have been receiving increased attention from court personnel, attorneys, and professional workers in related fields.

The trend towards specialization within police departments appears to be slowing up. National police organizations and a number of police administrators have begun to question some of the involvement of specialized juvenile units in a number of character-building activities aimed at the prevention of delinquency. Greater stress is being placed on the police role, in general, in dealing with juveniles and the improvement of standards of the entire department. Evidence of a greater recognition of the police role is found in the fact that four States now have State consultants in this area and three other States are contemplating such action.

In the institutional field, a number of States are reviewing or have already changed the State administrative structure relating to training schools. The older aggressive delinquent has also been the object of increased concern, particularly with respect to court procedures and institutional care.

Interest in training in the institutional, probational, and police field remains high. A number of workshops and institutes were conducted by Children's Bureau staff, including a second one at Rutgers University on Staff Development for Administrators of Institutions for Juvenile Delinquents.

Development of a much closer interaction between the field of corrections and social work education is now discernible. Inclusion of the findings of the Committee on Corrections in the Council on Social Work Education curriculum study reflects this, as does the growing participation by schools of social work in inservice training and specialized training courses.

Bureau staff worked with a variety of agencies in a variety of areas during the year. Cooperative effort has continued with the National Council of Juvenile Court Judges and the National Probation and Parole Association to develop Standard Juvenile Court and Family Court Acts. Similarly, the Bureau has been working cooperatively with the National Probation and Parole Association on the publication *Standards and Guides for the Detention of Children and Youth*. At the Association's request, the Bureau participated in five statewide studies. Other joint activities included work with the National Social Welfare Assembly and Council of State Governments on the development of an interstate compact related to residence and settlement laws; with the Interstate Compact Administrators Association on the operation of the Interstate Compact on Juveniles, and with the Family Service Association of America on a project to promote understanding and cooperation between attorneys and social agencies. Close working relationships were maintained with the Council on Social Work Education, the National Association of Training Schools and Juvenile Agencies, and the organization of training school superintendents.

Among the important publications completed during the year were: *Staff Training for Personnel in Institutions for Juvenile Delinquents* (CB Pub. 364), a report on the first Rutgers Workshop; *Youth Groups in Conflict* (CB Pub. 365), a report of a national conference of people involved in working with groups of hostile, delinquent youth, was also published.

INTERNATIONAL COOPERATION

The new Chief of the Children's Bureau was appointed by the President to serve as United States Representative on the Executive Board of the United Nations Children's Fund (UNICEF). At her first session in this capacity, in the spring of 1958, she introduced a resolution for the United States suggesting the possibility of expansion of UNICEF aid in the area of child welfare, with a beginning step in concern for children in institutions and day care centers. As a means to determine UNICEF's possible role in this area, she suggested a study by the United Nations Bureau of Social Affairs and UNICEF with consultation from WHO, with a report to be made in the Spring of 1959. This proposal was warmly received by many representatives on the Board, was approved, and the study is now in progress.

Under the continuing, cooperative program with the International Cooperation Administration, the Bureau's international staff recruits Americans for maternal and child health and child welfare positions abroad, provides technical materials and information as requested, and plans and arranges training programs for persons from other countries. The trend in requests, both for recruiting and for training in the health field, is toward the clinical specialties of pediatrics and obstetrics rather than the general areas of maternal and child health. In the child welfare field, there has been a similar trend and away from general child welfare, particularly toward juvenile delinquency specialists in the training program.

The maternal and child health specialists recruited and back-stopped by the Bureau contributed to programs in six countries. During the year a pediatric nurse-educator arrived in India. There were maternal and child health physicians in Iraq and in Paraguay, a nurse-midwife in Bolivia, a pediatric nurse-educator in Brazil, a maternity nurse-educator and a pediatric nurse-educator in Guatemala.

During the year, the Bureau's international staff planned and arranged programs of study in this country for 75 long-term trainees and observers and 182 short-term visitors. The trainees were in programs 12 months or more, the observers 2 to 6 months, and the short-term visitors a few hours to 2 months. They came from 35 countries under the auspices of the International Cooperation Administration,

the United Nations, the World Health Organization, and the International Exchange Service of the Department of State.

Of the 75 long-term trainees and observers, 49 were in the health field, and 26 in the welfare field. In the health field, there were 36 physicians, of whom 19 took courses in public health with a specialty in maternal and child health, and 17 took graduate work in pediatrics or other clinical specialties as applied to children. Of 12 nurses, 11 studied children's dentistry. Here to study in the area of juvenile delinquency, were two police officers, an institutional director, a psychologist, and several group workers interested in work with "problem children." An additional ten people came for study in the general field of child and youth welfare. Three social workers received training in medical social work.

Appointments were arranged also for 182 short-term visitors from 59 countries. Of this number, 114 were interested in child and youth welfare, 52 in maternal and child health, and 16 in a combination of maternal and child health, crippled children's programs, and child and youth welfare.

INFORMATION FOR PARENTS AND THOSE WORKING WITH CHILDREN

In March 1958, the Government Printing Office reported that four of the five best-selling Government publications were those of the Children's Bureau, including *Infant Care*, *Prenatal Care*, *Your Child From One to Six*, and *Your Child From Six to Twelve*. The fact reflected both a heavy demand from the public for information about children, and a long history in the Bureau of reporting information which could contribute to the well-being of children and advancement of services in their behalf.

The Division of Reports is the Bureau's central channel for implementing its reporting function. Working with administrative and technical staff in developing written and visual materials, it released during 1958, 26 new and revised publications, while 13 more were in press at the end of the year. Five of the 39 were directed to parents and 34 of a technical or professional nature.

In addition, information on children's problems and services was supplied to press and other media, or given in response to queries from parents themselves. Nearly 150 direct requests came from newspapers, magazines, professional journals, broadcasters, and other communication channels.

Federal Credit Unions

Substantial growth again characterized the Federal credit union program in fiscal year 1958. Charters were issued to 617 new groups,

and 310 credit unions entered liquidation during the year, bringing the number of active charters to 8,992 on June 30, 1958. As membership, savings, and lending activities continued to increase, asset accumulation moved up to a new high level. By the middle of the fiscal year, median assets exceeded \$70,000, and 340 Federal credit unions, or 4 percent of the total number in operation, had assets in excess of \$1 million.

Total assets moved up to about \$1,860 million on June 30, 1958, an increase of 14 percent during the current fiscal year in contrast to a 19-percent rise in the preceding twelve months and a 22-percent gain during fiscal year 1956. Members' shareholdings increased at about the same rate—14 percent—during fiscal year 1958. Active membership in Federal credit unions exceeded 50 percent of the potential number eligible for membership for the first time during the fiscal year. By the end of June 1958, more than 5 million individuals held membership in a Federal credit union while another 5 million who were included in the field of membership had not yet joined by the end of the fiscal year.

Individual credit unions made significant progress during the fiscal year in strengthening their financial position in the face of rising delinquency rates. In order to combat the trend toward slower repayment of loans, many credit unions set up special reserves or increased their regular reserve by setting aside out of undivided earnings an amount in excess of the required 20 percent of their net income for the year. The fiscal year for Federal credit unions is the 12-month period ending December 31. At the end of 1957, reserves in all Federal credit unions exceeded loans classified as delinquent by 20 percent. Regular and special reserves set aside to protect members' shareholdings increased 27 percent in 1957 in contrast to a rise of only 16 percent in shares.

After intensive study by the Washington and Regional Office staff of the Bureau, a new examination procedure was developed and put into effect early in 1958. The new procedure was designed to achieve more nearly uniform examinations throughout the country by the institution of examining techniques culled from the experiences of examiners in all areas. Standardization of numerous work papers, and development of printed sets of report forms are expected to enable the examiners to complete a thorough examination in less time, and thus reduce the expense to the credit unions for these examinations. Emphasis has been placed under the new examination procedure on activities of the Supervisory Committee.

The work of this committee is of major importance to the credit union, and may very well represent the difference between success and failure, particularly among newly organized units. The Supervisory Committee is responsible for periodic internal audits of the credit

union in order to ascertain that all actions of the directors and officers conform with established procedures and are in the best interests of the members. Under the new examination procedure, the Bureau will determine whether or not the Supervisory Committee is carrying out its responsibilities, and will be in a better position to render effective assistance to the credit unions.

The heaviest workload of the Bureau is in the examination activity. For many years, the Bureau has been faced with the problem of recruiting and training a sufficient number of examiners to keep up with the increasing workload as the program continues to grow. During fiscal year 1958, the Bureau was able to recruit a full staff of examiners for the first time. Henceforth, a regular examination of all Federal credit unions will be scheduled annually. In the current fiscal year, the Bureau completed 8,693 examinations of Federal credit unions, or 22 percent more than the number completed during fiscal year 1957.

There were no amendments to the Federal Credit Union Act during fiscal year 1958.

Table 1.—Social Security Administration: Funds available and obligations incurred, fiscal years 1958 and 1957 ¹

[In thousands; data as of June 30, 1958]

| Item | Funds available ² | | Obligations incurred | |
|--|------------------------------|------------------------|----------------------|-------------|
| | 1958 | 1957 | 1958 | 1957 |
| Total..... | \$1,960,587 | \$1,741,948 | \$1,937,598 | \$1,751,997 |
| Grants to States: | | | | |
| Public assistance..... | ³ 1,767,177 | ⁴ 1,575,000 | 1,745,173 | 1,586,361 |
| Old-age assistance..... | | | 1,052,708 | 993,284 |
| Aid to the blind..... | ³ 1,767,177 | ⁴ 1,575,000 | 44,192 | 41,361 |
| Aid to dependent children..... | | | 525,318 | 443,210 |
| Aid to the permanently and totally disabled..... | | | 122,955 | 108,506 |
| Maternal and child health and welfare services..... | 41,500 | 39,361 | 40,722 | 38,253 |
| Maternal and child health services..... | 16,500 | 16,000 | 16,336 | 15,498 |
| Services for crippled children..... | 15,000 | 15,000 | 14,847 | 14,835 |
| Child welfare services..... | 10,000 | 8,361 | 9,539 | 7,920 |
| Administrative expenses: ⁵ | | | | |
| Office of the Commissioner ⁶ | 541 | 372 | 504 | 361 |
| Bureau of Old-Age and Survivors Insurance ⁷ | 144,692 | 121,500 | 144,449 | 121,413 |
| Bureau of Public Assistance..... | 1,982 | 1,748 | 1,974 | 1,730 |
| Children's Bureau ⁸ | 2,048 | 1,822 | 2,045 | 1,811 |
| Bureau of Federal Credit Unions..... | 2,647 | 2,145 | 2,731 | 2,068 |

¹ Funds available and obligations reported by administrative agencies.

² Funds made available by regular and supplemental appropriations, authorizations, transfers, allotments, recoveries, and fee collections for services rendered.

³ Excludes \$3.4 million transferred to other DHEW appropriation accounts pursuant to P. L. 85-472 for meeting portion of increased pay in 1958.

⁴ Excludes \$11.4 million spent from 1958 appropriation for 1957 requirements.

⁵ Funds made available and obligations incurred for salaries, printing and binding, communications, traveling expenses, and all other objects of expenditure.

⁶ Appropriations by Congress from general revenues accounted for approximately 56 percent of the administrative expenses of the Office of the Commissioner in 1957 and 1958; balance from old-age and survivors insurance trust fund.

⁷ Administrative costs of the old-age, survivors, and disability insurance program which involved benefit payments of \$6,515,000,000 in 1957 and \$8,043,000,000 in 1958. Does not include construction costs of new building as follows: *Funds available*: 1958, \$30,140,163; 1957, \$24,491,787. *Obligations incurred*: 1958, \$22,370,702; 1957, \$61,624.

⁸ Includes expenses for investigating and reporting on matters pertaining to the welfare of children authorized by the act of 1912, as well as expenses for administration of grants to States.

Table 2.—Financing social insurance under the Social Security Act: Contributions collected and trust fund operations, fiscal years 1956–58

[In millions]

| Item | 1958 | 1957 | 1956 |
|---|---------|---------|---------|
| Contributions collected under— | | | |
| Federal Insurance Contributions Act: ¹ | | | |
| Retirement and survivor..... | \$7,269 | \$6,540 | \$6,442 |
| Disability ² | 925 | 337 | ----- |
| Federal Unemployment Tax Act ³ | 836 | 330 | 325 |
| State unemployment insurance laws ⁴ ⁵ | 1,500 | 1,537 | 1,329 |
| Old-age and survivors insurance trust fund: | | | |
| Receipts, total..... | 7,826 | 7,100 | 6,937 |
| Transfers, appropriations, and deposits ¹ | 7,269 | 6,540 | 6,442 |
| Interest and profit on investment ⁶ | 7,557 | 561 | 495 |
| Expenditures, total..... | 8,041 | 6,665 | 5,485 |
| Monthly benefits and lump-sum payments ⁸ | 7,875 | 6,515 | 5,361 |
| Administration ⁹ | 166 | 150 | 124 |
| Assets, end of year..... | 22,814 | 23,029 | 22,593 |
| Disability insurance trust fund: ² | | | |
| Receipts, total..... | 941 | 339 | ----- |
| Appropriations and deposits..... | 925 | 337 | ----- |
| Interest and profit on investment..... | 7 16 | 1 | ----- |
| Expenditures, total..... | 180 | 1 | ----- |
| Monthly benefits ⁸ | 168 | ----- | ----- |
| Administration ⁹ | 12 | 1 | ----- |
| Assets, end of year..... | 1,097 | 337 | ----- |
| State accounts in unemployment trust fund: | | | |
| Receipts, total..... | 1,721 | 1,790 | 1,520 |
| Deposits ⁵ | 1,501 | 1,578 | 1,333 |
| Interest..... | 220 | 212 | 187 |
| Withdrawals for benefit payments..... | 2,926 | 1,513 | 1,287 |
| Assets, end of year..... | 7,360 | 8,492 | 8,216 |

¹ Contributions on earnings up to and including \$4,200 a year beginning Jan. 1, 1955. Contribution rate paid by employers and employees: 2 percent each through Dec. 1956 and 2½ percent each beginning Jan. 1, 1957, the additional ½ percent each being for disability insurance. Contribution rate paid by self-employed: 3 percent through Dec. 1956 and 3½ percent beginning Jan. 1, 1957 (the additional ½ percent for disability insurance). Includes deposits by States under voluntary agreements for coverage of State and local employees. Includes deductions to adjust for reimbursement to the general Treasury of the estimated amount of taxes subject to refund on wages in excess of wage base.

² Under the 1956 Amendments to the Social Security Act, Federal disability insurance contributions began Jan. 1, 1957, and benefit payments began Aug. 1957 (for July 1957 eligibility).

³ Tax paid by employers of 8 or more through 1956, beginning Jan. 1957 by employers of 4 or more. Employers offset against this tax—up to 90 percent of the amount assessed—contributions which they have paid under State unemployment insurance laws or full amount they would have paid if they had not been allowed reduced contribution rates under State experience-rating provisions. Rate is 3 percent of first \$3,000 a year of wages paid to each employee by subject employer; because of credit offset, effective rate is 0.3 percent of such wages.

⁴ Contributions plus penalties and interest collected from employers and contributions from employees, reported by State agencies.

⁵ Contributions and deposits by States usually differ slightly, primarily because of time lag in making deposits.

⁶ Includes interest transferred from the railroad retirement account under the financial interchange provision of the Railroad Retirement Act, as amended in 1951.

⁷ Reflects transfer of interest from disability insurance trust fund to old-age and survivors insurance trust fund on account of adjusted administrative expenses for prior fiscal year. See footnote 9.

⁸ Represents checks issued.

⁹ Beginning Jan. 1, 1957, subject to subsequent adjustment between the old-age and survivors insurance and disability insurance trust funds. First such adjustment in June 1958 for fiscal year 1957 resulted in transfer of \$9 million from the disability insurance to the old-age and survivors insurance trust fund.

Table 3.—Old-age, survivors, and disability insurance: Estimated number of families and beneficiaries receiving benefits and average monthly benefit in current-payment status, by family group, end of June 1958 and 1957

[In thousands, except for average benefit; data corrected to November 1958]

| Family classification of beneficiaries | June 30, 1958 | | | June 30, 1957 | | |
|--|--------------------|-------------------------|-----------------------------------|--------------------|-------------------------|-----------------------------------|
| | Number of families | Number of beneficiaries | Average monthly amount per family | Number of families | Number of beneficiaries | Average monthly amount per family |
| Total | 8,794.4 | 11,905.3 | ----- | 7,580.8 | 10,342.1 | ----- |
| Retired worker families | 6,638.5 | 8,785.1 | ----- | 5,832.3 | 7,710.1 | ----- |
| Worker only | 4,661.2 | 4,661.2 | \$61.80 | 4,092.2 | 4,092.2 | \$60.30 |
| Male | 2,498.9 | 2,498.9 | 69.50 | 2,273.0 | 2,273.0 | 67.10 |
| Female | 2,162.3 | 2,162.3 | 53.00 | 1,819.2 | 1,819.2 | 51.70 |
| Worker and aged wife | 1,835.4 | 3,670.8 | 109.90 | 1,628.4 | 3,256.8 | 107.70 |
| Worker and young wife ¹ | 1.0 | 2.0 | 107.00 | .7 | 1.4 | 100.00 |
| Worker and aged dependent husband | 13.7 | 27.4 | 94.00 | 12.8 | 25.6 | 91.80 |
| Worker and 1 or more children | 29.9 | 70.8 | 104.00 | 21.1 | 52.9 | 101.00 |
| Worker, wife aged 65 or over, and 1 or more children | 7.8 | 23.8 | 138.00 | 3.0 | 9.2 | 135.50 |
| Worker, young wife, and 1 or more children | 89.4 | 328.8 | 128.00 | 74.1 | 272.0 | 125.30 |
| Worker, husband, and 1 or more children | .1 | .3 | 132.00 | 0 | 0 | 0 |
| Survivor families | 1,955.5 | 2,919.8 | ----- | 1,748.5 | 2,632.0 | ----- |
| Aged widow | 1,165.5 | 1,165.5 | 51.60 | 1,017.7 | 1,017.7 | 50.70 |
| Aged dependent widower | 1.5 | 1.5 | 48.50 | 1.3 | 1.3 | 47.30 |
| Widowed mother only ¹ | 1.0 | 1.0 | 49.00 | 1.5 | 1.5 | 49.00 |
| Widowed mother and 1 child | 149.6 | 299.2 | 116.60 | 134.6 | 269.2 | 111.70 |
| Widowed mother and 2 children | 102.6 | 307.8 | 148.70 | 92.6 | 277.7 | 143.70 |
| Widowed mother and 3 or more children | 97.2 | 461.4 | 147.90 | 87.4 | 414.6 | 141.70 |
| Divorced wife and 1 or more children | .3 | .7 | 133.00 | .3 | .7 | 135.00 |
| 1 child only | 254.9 | 254.9 | 51.20 | 237.6 | 237.6 | 49.80 |
| 2 children | 98.9 | 197.8 | 87.90 | 94.3 | 188.6 | 85.80 |
| 3 children | 34.7 | 104.1 | 113.80 | 33.8 | 101.4 | 109.20 |
| 4 children | 21.6 | 96.5 | 125.10 | 21.0 | 93.6 | 117.30 |
| 1 aged dependent parent | 26.0 | 26.0 | 52.70 | 24.7 | 24.7 | 51.60 |
| 2 aged dependent parents | 1.7 | 3.4 | 99.60 | 1.7 | 3.4 | 98.60 |
| Disabled worker families ² | 200.4 | 200.4 | 74.40 | ----- | ----- | ----- |
| Male | 158.8 | 158.8 | 75.50 | ----- | ----- | ----- |
| Female | 41.6 | 41.6 | 70.10 | ----- | ----- | ----- |

¹ Benefits to children were being withheld.² Benefits to disabled workers aged 50-64 began July 1957².

Table 4.—Old-age, survivors, and disability insurance: Selected data on benefits, employers, workers, and taxable earnings, by State, for specified periods, 1955, 1957, and 1958

[In thousands, except for average taxable earnings; data corrected to Oct. 24, 1958]

| State | Monthly benefits in current-payment status, end of fiscal year 1958 ¹ | | Benefit payments fiscal year 1958 ¹ | | | Em- ployers report- ing tax- able wages, July- Sep- tember 1957 ² | Calendar year 1955 | | |
|-----------------------|--|-----------|--|---------------------|-------------------------------|---|--|--|--------------------------|
| | Num- ber | Amount | Total | Monthly benefits | Lump- sum pay- ments | | Work- ers with taxable earn- ings ³ | Amount of taxable earnings ⁴ | Average per worker |
| Total | 11,905.3 | \$659,684 | \$8,043,353 | \$7,900,639 | \$142,714 | 4,150 | 66,000 | \$157,700,000 | \$2,390 |
| Alabama | 180.4 | 8,075 | 98,690 | 96,713 | 1,977 | 59 | 990 | 1,734,000 | 1,750 |
| Alaska | 5.3 | 269 | 3,263 | 3,187 | 76 | 4 | 70 | 135,000 | 2,040 |
| Arizona | 59.6 | 3,206 | 39,227 | 38,420 | 807 | 23 | 390 | 705,000 | 1,830 |
| Arkansas | 121.6 | 5,340 | 65,091 | 64,009 | 1,082 | 35 | 560 | 875,000 | 1,580 |
| California | 928.6 | 53,436 | 651,513 | 640,243 | 11,270 | 351 | 5,610 | 13,870,000 | 2,470 |
| Colorado | 98.1 | 5,316 | 64,815 | 63,718 | 1,097 | 41 | 640 | 1,256,000 | 1,970 |
| Connecticut | 188.7 | 11,850 | 144,335 | 141,861 | 2,474 | 66 | 1,100 | 2,942,000 | 2,670 |
| Delaware | 26.9 | 1,548 | 18,870 | 18,533 | 337 | 13 | 180 | 427,000 | 2,320 |
| Dist. of Col. | 41.5 | 2,280 | 27,917 | 27,312 | 605 | 31 | 500 | 1,038,000 | 2,040 |
| Florida | 357.1 | 20,282 | 246,364 | 243,016 | 3,348 | 116 | 1,530 | 2,591,000 | 1,700 |
| Georgia | 186.9 | 8,457 | 103,496 | 101,289 | 2,207 | 80 | 1,330 | 2,330,000 | 1,750 |
| Hawaii | 24.8 | 1,259 | 15,361 | 15,128 | 233 | 12 | 170 | 387,000 | 2,220 |
| Idaho | 43.5 | 2,287 | 27,874 | 27,431 | 443 | 15 | 250 | 482,000 | 1,910 |
| Illinois | 695.9 | 41,314 | 504,104 | 494,716 | 9,388 | 240 | 4,430 | 11,312,000 | 2,550 |
| Indiana | 348.2 | 19,583 | 238,584 | 234,584 | 4,000 | 96 | 1,960 | 4,463,000 | 2,280 |
| Iowa | 211.6 | 11,398 | 138,742 | 136,629 | 2,113 | 69 | 1,100 | 2,344,000 | 2,130 |
| Kansas | 155.6 | 8,149 | 99,157 | 97,684 | 1,473 | 51 | 860 | 1,670,000 | 1,940 |
| Kentucky | 210.7 | 9,932 | 121,071 | 119,017 | 2,054 | 58 | 980 | 1,853,000 | 1,890 |
| Louisiana | 137.2 | 6,451 | 79,124 | 77,269 | 1,855 | 64 | 920 | 1,856,000 | 2,010 |
| Maine | 88.4 | 4,654 | 56,690 | 55,756 | 934 | 25 | 400 | 735,000 | 1,820 |
| Maryland | 159.3 | 8,784 | 107,625 | 105,182 | 2,443 | 71 | 1,040 | 2,294,000 | 2,200 |
| Massachusetts | 441.9 | 26,501 | 322,559 | 317,291 | 5,268 | 127 | 2,170 | 5,120,000 | 2,360 |
| Michigan | 509.3 | 30,806 | 375,387 | 368,893 | 6,498 | 160 | 3,370 | 8,742,000 | 2,600 |
| Minnesota | 234.7 | 12,874 | 156,832 | 154,327 | 2,505 | 75 | 1,230 | 2,657,000 | 2,160 |
| Mississippi | 114.1 | 4,635 | 56,645 | 55,593 | 1,052 | 35 | 570 | 902,000 | 1,570 |
| Missouri | 325.6 | 17,605 | 214,698 | 210,912 | 3,786 | 103 | 1,780 | 3,861,000 | 2,170 |
| Montana | 46.2 | 2,565 | 31,265 | 30,764 | 501 | 16 | 230 | 559,000 | 1,990 |
| Nebraska | 102.1 | 5,408 | 65,943 | 64,840 | 1,103 | 35 | 590 | 1,083,000 | 1,840 |
| Nevada | 12.1 | 694 | 8,552 | 8,319 | 233 | 7 | 140 | 235,000 | 1,690 |
| New Hampshire | 54.5 | 3,051 | 37,202 | 36,558 | 644 | 17 | 280 | 542,000 | 1,940 |
| New Jersey | 437.3 | 27,005 | 329,625 | 323,297 | 6,328 | 154 | 2,550 | 6,050,000 | 2,370 |
| New Mexico | 34.2 | 1,563 | 19,077 | 18,753 | 324 | 17 | 230 | 381,000 | 1,670 |
| New York | 1,245.7 | 74,512 | 900,295 | 892,332 | 16,963 | 512 | 7,790 | 19,524,000 | 2,510 |
| North Carolina | 227.0 | 10,219 | 125,145 | 122,414 | 2,731 | 90 | 1,620 | 2,677,000 | 1,650 |
| North Dakota | 35.3 | 1,823 | 22,241 | 21,875 | 366 | 13 | 210 | 367,000 | 1,750 |
| Ohio | 661.5 | 38,901 | 474,274 | 465,816 | 8,458 | 207 | 4,290 | 11,250,000 | 2,630 |
| Oklahoma | 140.7 | 7,005 | 85,377 | 83,953 | 1,424 | 52 | 870 | 1,624,000 | 1,870 |
| Oregon | 144.9 | 8,237 | 100,204 | 98,747 | 1,457 | 44 | 770 | 1,731,000 | 2,240 |
| Pennsylvania | 881.8 | 51,726 | 630,191 | 619,090 | 11,101 | 257 | 4,680 | 11,558,000 | 2,470 |
| Puerto Rico | 67.3 | 2,011 | 23,508 | 23,270 | 298 | 16 | 430 | 382,000 | 890 |
| Rhode Island | 76.0 | 4,485 | 54,580 | 53,689 | 891 | 22 | 410 | 865,000 | 2,120 |
| South Carolina | 111.7 | 4,926 | 60,377 | 58,991 | 1,386 | 45 | 720 | 1,220,000 | 1,690 |
| South Dakota | 46.5 | 2,417 | 29,429 | 29,002 | 427 | 16 | 220 | 414,000 | 1,840 |
| Tennessee | 199.9 | 9,025 | 110,125 | 108,142 | 1,983 | 73 | 1,140 | 2,054,000 | 1,810 |
| Texas | 445.7 | 21,749 | 265,962 | 260,624 | 5,338 | 223 | 3,380 | 6,781,000 | 2,010 |
| Utah | 45.1 | 2,462 | 30,018 | 29,520 | 498 | 16 | 350 | 672,000 | 1,920 |
| Vermont | 32.9 | 1,750 | 21,352 | 20,960 | 392 | 11 | 160 | 331,000 | 2,070 |
| Virgin Islands | .7 | 26 | 303 | 302 | 1 | 1 | 10 | 6,000 | 470 |
| Virginia | 211.6 | 10,221 | 124,927 | 122,425 | 2,502 | 84 | 1,340 | 2,553,000 | 1,910 |
| Washington | 208.0 | 11,995 | 145,991 | 143,713 | 2,278 | 65 | 1,020 | 2,330,000 | 2,290 |
| West Virginia | 150.4 | 7,669 | 93,295 | 91,812 | 1,483 | 37 | 600 | 1,265,000 | 2,120 |
| Wisconsin | 300.6 | 16,948 | 206,522 | 203,039 | 3,483 | 91 | 1,550 | 3,817,000 | 2,470 |
| Wyoming | 17.4 | 946 | 11,539 | 11,348 | 191 | 9 | 150 | 266,000 | 1,800 |
| Foreign ⁵ | 72.9 | 4,055 | 48,640 | 48,326 | 314 | ----- | 50 | 149,000 | 2,760 |
| Maritime ⁶ | ----- | ----- | ----- | ----- | ----- | ----- | 150 | 394,000 | 2,690 |

¹ Distribution by beneficiary's State of residence estimated.

² State data represent number of employers reporting taxable wages by the State of their reporting headquarters. An employer is a legal entity such as a corporation, partnership, or single ownership, for which a single tax return is filed. Excludes agricultural employers.

³ State data represent workers employed in the State at some time during the year. Workers employed in more than 1 State are counted once in each of the States in which employed.

⁴ State data represent taxable earnings distributed according to the State in which earned. Averages, based on unrounded estimates of workers and earnings, are rounded to nearest \$10.

⁵ Benefit data relate to persons in foreign countries receiving old-age and survivors insurance benefits. Employment and earnings data relate to citizens of the United States employed by American employers.

⁶ Relate to employment of officers and crews of American vessels.

Table 5.—Old-age, survivors, and disability insurance: Selected data on benefits, employers, workers, and taxable earnings for specified periods, 1956–58

[In thousands, except for average monthly benefit and average taxable earnings; corrected to Oct. 24, 1958]

| Item | 1958 | 1957 | 1956 |
|--|-------------|---------------|---------------|
| Fiscal year | | | |
| Benefits in current-payment status (end of period): | | | |
| Number..... | 11,905.3 | 10,342.1 | 8,374.5 |
| Old-age..... | 6,638.5 | 5,832.3 | 4,731.9 |
| Wife's or husband's..... | 1,947.4 | 1,719.0 | 1,255.0 |
| Child's ¹ | 1,571.9 | 1,427.4 | 1,316.7 |
| Widow's or widower's..... | 1,172.8 | 1,020.5 | 747.8 |
| Mother's..... | 344.9 | 314.9 | 297.3 |
| Parent's..... | 29.4 | 28.1 | 25.7 |
| Disability ² | 200.4 | | |
| Total monthly amount..... | \$659,684 | \$554,637 | \$439,424 |
| Old-age..... | \$436,244 | \$373,230 | \$296,976 |
| Wife's or husband's..... | \$67,821 | \$58,749 | \$41,968 |
| Child's ¹ | \$61,471 | \$54,283 | \$48,662 |
| Widow's or widower's..... | \$60,457 | \$51,707 | \$36,648 |
| Mother's..... | \$17,241 | \$15,224 | \$13,876 |
| Parent's..... | \$1,538 | \$1,445 | \$1,293 |
| Disability ² | \$14,911 | | |
| Average monthly amount: | | | |
| Old-age..... | \$65.71 | \$63.99 | \$62.76 |
| Wife's or husband's..... | \$34.83 | \$34.18 | \$33.44 |
| Child's ¹ | \$39.11 | \$38.03 | \$36.96 |
| Widow's or widower's..... | \$51.55 | \$50.67 | \$49.01 |
| Mother's..... | \$49.99 | \$48.35 | \$46.67 |
| Parent's..... | \$52.34 | \$51.38 | \$50.31 |
| Disability ² | \$74.42 | | |
| Benefit payments during period: | | | |
| Monthly benefits..... | \$7,900,639 | \$6,391,690 | \$5,245,476 |
| Old-age..... | \$5,245,778 | \$4,340,271 | \$3,531,824 |
| Supplementary..... | \$860,488 | \$679,289 | \$531,831 |
| Survivor..... | \$1,625,953 | \$1,372,130 | \$1,181,821 |
| Disability ² | \$168,420 | | |
| Lump-sum payments..... | \$142,714 | \$122,891 | \$115,337 |
| Insured workers (midpoint of period—Jan. 1) ³ | 74,000 | 72,500 | 70,900 |
| Fully insured..... | 73,000 | 72,200 | 70,100 |
| Currently but not fully insured..... | 1,000 | 300 | 800 |
| Estimated number of employers reporting taxable wages, 1st quarter of fiscal year..... | 4,150 | 4,050 | 3,950 |
| Calendar year | | | |
| Estimated number of workers with taxable earnings..... | (4) | 74,000 | 68,000 |
| Estimated amount of taxable earnings..... | (5) | \$183,000,000 | \$170,000,000 |
| Average taxable earnings ⁶ | (5) | \$2,470 | \$2,500 |

¹ Data for 1957 and 1958 include benefits payable to disabled persons aged 18 or over—dependent children of deceased or retired insured workers—whose disability began before age 18.² Monthly benefits to disabled workers aged 50–64.³ Estimates of insured workers have not been adjusted to reflect changes in insurance status arising from: (1) provisions that coordinate the old-age, survivors, and disability insurance and railroad retirement programs and (2) wage credits for military service. Estimates are only partially adjusted to eliminate duplicate count of persons with taxable earnings reported on more than 1 account number.⁴ Excludes agricultural employers.⁵ Not available.⁶ Rounded to nearest \$10.

Table 6.—Special types of public assistance under plans approved by the Social Security Administration: Number of recipients and average payment, June 1958, and total payment to recipients, by program and State, fiscal year 1958

[Includes vendor payments for medical care and cases receiving only such payments; data corrected to Oct. 16, 1958]

| State | Old-age assistance | | | Aid to dependent children | | | | | Aid to the blind | | Aid to the permanently and totally disabled | | | |
|---------------------------|----------------------------|------------------------|-----------------------------------|----------------------------|--------------------|-----------|----------------------------------|-------------------------------------|----------------------------|-----------------------------------|---|----------------------------|-----------------------------------|-----------|
| | Number of recipients, June | Payments to recipients | | Number of recipients, June | | | Payments to recipients | | Number of recipients, June | Payments to recipients | | Number of recipients, June | Payments to recipients | |
| | | Average payment, June | Total, fiscal year (in thousands) | Families | Total ¹ | Children | Average payment per family, June | Average payment per recipient, June | | Total, fiscal year (in thousands) | Average payment, June | | Total, fiscal year (in thousands) | |
| | | | | | | | | | | | | | | |
| Fiscal year: | | | | | | | | | | | | | | |
| 1956..... | 2,523,716 | \$54.29 | \$1,633,533 | 613,720 | 2,250,229 | 1,707,629 | 70,734 | 33.52 | \$89.27 | \$24.35 | \$639,476 | \$73,064 | \$56.72 | \$165,183 |
| 1957..... | 2,503,790 | 58.66 | 1,724,289 | 647,185 | 2,398,728 | 1,831,860 | 17,483 | 99.82 | 96.52 | 26.04 | 700,269 | 80,610 | 59.10 | 188,844 |
| 1958..... | 2,460,308 | 61.39 | 1,798,374 | 728,303 | 2,732,797 | 2,091,823 | 25,607 | 102.40 | 102.40 | 27.29 | 815,196 | 85,397 | 60.71 | 212,209 |
| Alabama..... | 102,863 | 38.96 | 50,223 | 22,950 | 91,132 | 70,734 | 3,073 | 8.44 | 33.52 | 8.44 | 9,436 | 736 | 33.46 | 5,156 |
| Alaska..... | 1,527 | 1,169 | 1,195 | 4,162 | 3,073 | 17,483 | 105.24 | 26.90 | 6,861 | 67.40 | 71 | 627 | --- | --- |
| Arizona..... | 14,085 | 55.15 | 9,377 | 5,877 | 22,993 | 17,483 | 25,607 | 15.48 | 55.62 | 15.48 | 5,506 | 2,014 | 53.23 | --- |
| Arkansas..... | 55,649 | 48.36 | 30,229 | 8,494 | 32,708 | 25,607 | 159.97 | 45.23 | 159.97 | 45.23 | 105,882 | 16,666 | 35.37 | 2,801 |
| California..... | 285,986 | 83.88 | 259,954 | 64,370 | 227,652 | 176,326 | 20,000 | 31.96 | 159.97 | 31.96 | 9,198 | 329 | 76.03 | 3,200 |
| Colorado..... | 52,152 | 91.79 | 53,207 | 6,678 | 25,755 | 20,000 | 15,488 | 123.25 | 123.25 | 31.96 | 9,198 | 329 | 60.40 | 1,023 |
| Connecticut..... | 15,142 | 106.40 | 19,522 | 6,398 | 20,894 | 15,488 | 147.06 | 45.03 | 147.06 | 45.03 | 10,256 | 386 | 5,482 | 3,828 |
| Delaware..... | 1,531 | 48.93 | 1,938 | 1,593 | 5,899 | 4,511 | 87.50 | 23.63 | 87.50 | 23.63 | 1,603 | 273 | 63.91 | 3,155 |
| District of Columbia..... | 3,118 | 56.68 | 2,336 | 3,117 | 13,496 | 10,566 | 10,566 | 122.43 | 122.43 | 28.28 | 4,293 | 236 | 64.50 | 2,273 |
| Florida..... | 68,425 | 53.83 | 43,984 | 24,793 | 90,079 | 69,595 | 69,595 | 59.19 | 16.29 | 16.29 | 16,642 | 2,523 | 58.37 | 4,156 |
| Georgia..... | 98,097 | 43.34 | 50,669 | 15,421 | 57,603 | 44,272 | 82.90 | 22.19 | 82.90 | 22.19 | 14,604 | 3,491 | 48.11 | 8,030 |
| Hawaii..... | 1,531 | 52.02 | 954 | 2,742 | 10,688 | 8,527 | 114.57 | 29.39 | 114.57 | 29.39 | 3,832 | 80 | 63.66 | 8,874 |
| Idaho..... | 7,961 | 60.50 | 5,850 | 6,895 | 6,895 | 5,073 | 140.77 | 38.48 | 140.77 | 38.48 | 2,997 | 180 | 65.10 | 715 |
| Illinois..... | 81,844 | 66.46 | 67,703 | 30,702 | 124,163 | 95,156 | 95,156 | 150.77 | 37.28 | 37.28 | 48,836 | 2,890 | 77.62 | 13,747 |
| Indiana..... | 30,613 | 58.06 | 21,545 | 10,455 | 37,951 | 28,410 | 28,410 | 102.34 | 102.34 | 38.19 | 11,822 | 1,442 | 69.03 | --- |
| Iowa..... | 37,087 | 67.54 | 30,326 | 8,009 | 29,341 | 21,912 | 127.92 | 34.92 | 127.92 | 34.92 | 10,611 | 1,466 | 82.79 | --- |
| Kansas..... | 30,737 | 73.66 | 27,397 | 5,386 | 19,950 | 15,508 | 123.80 | 33.42 | 123.80 | 33.42 | 7,569 | 621 | 78.51 | 3,885 |
| Kentucky..... | 57,362 | 38.64 | 26,804 | 20,309 | 73,878 | 55,745 | 71.40 | 19.63 | 71.40 | 19.63 | 16,963 | 3,249 | 39.93 | 2,862 |
| Louisiana..... | 124,116 | 63.32 | 94,352 | 24,604 | 99,037 | 76,409 | 84.16 | 20.91 | 84.16 | 20.91 | 23,424 | 2,453 | 74.12 | 8,897 |
| Maine..... | 12,241 | 58.83 | 8,202 | 5,267 | 18,377 | 13,504 | 92.86 | 26.61 | 92.86 | 26.61 | 5,483 | 470 | 64.43 | 906 |
| Maryland..... | 9,716 | 55.44 | 6,134 | 7,399 | 30,457 | 23,791 | 109.67 | 26.64 | 109.67 | 26.64 | 8,690 | 460 | 59.56 | 3,624 |
| Massachusetts..... | 84,729 | 93.03 | 97,229 | 13,677 | 46,253 | 34,259 | 147.24 | 43.54 | 147.24 | 43.54 | 23,666 | 2,008 | 113.39 | 13,083 |
| Michigan..... | 66,998 | 66.14 | 53,765 | 24,090 | 86,276 | 63,489 | 134.38 | 37.52 | 134.38 | 37.52 | 35,072 | 1,796 | 75.84 | 3,532 |
| Minnesota..... | 48,395 | 80.98 | 46,544 | 8,814 | 30,193 | 23,345 | 140.21 | 40.93 | 140.21 | 40.93 | 13,968 | 1,129 | 89.62 | 1,179 |

| | | | | | | | | | | | | | | | |
|---------------------|---------|--------|---------|--------|---------|---------|--------|-------|---------|--------|--------|--------|--------|--------|--------|
| Mississippi----- | 81,023 | 29,85 | 28,395 | 16,940 | 64,018 | 50,578 | 47,37 | 12,53 | 6,967 | 5,419 | 38,83 | 2,411 | 6,486 | 29,58 | 1,809 |
| Missouri----- | 122,948 | 54,52 | 81,296 | 24,551 | 92,042 | 69,589 | 82,74 | 22,07 | 23,607 | 5,129 | 60,00 | 3,679 | 15,069 | 56,22 | 10,005 |
| Montana----- | 7,827 | 61,69 | 5,988 | 2,066 | 7,458 | 5,764 | 117.84 | 32.64 | 2,986 | 331 | 70.10 | 343 | 1,450 | 68.71 | 1,196 |
| Nebraska----- | 16,412 | 12,019 | 12,019 | 2,972 | 11,044 | 8,352 | 101.93 | 27.43 | 3,460 | 975 | 874 | 874 | 1,442 | 68.63 | 1,057 |
| Nevada----- | 2,592 | 68,42 | 2,081 | 895 | 3,016 | 2,312 | 92.15 | 27.35 | 814 | 152 | 97.38 | 157 | 332 | 85.39 | 339 |
| New Hampshire----- | 5,287 | 68.70 | 4,334 | 1,029 | 3,906 | 2,942 | 143.56 | 37.81 | 1,579 | 248 | 73.99 | 209 | 5,177 | 90.70 | 5,182 |
| New Jersey----- | 19,196 | 82,82 | 18,286 | 9,027 | 29,833 | 22,567 | 143.89 | 43.54 | 13,637 | 904 | 77.99 | 842 | 2,008 | 56.57 | 1,300 |
| New Mexico----- | 10,293 | 53,52 | 6,480 | 6,986 | 26,211 | 19,991 | 90.37 | 24.09 | 7,819 | 389 | 56.40 | 266 | 39,153 | 94.48 | 42,945 |
| New York----- | 88,599 | 96.66 | 99,727 | 65,791 | 249,862 | 186,375 | 152.25 | 40.09 | 111,081 | 4,163 | 100.27 | 4,894 | 16,316 | 42.62 | 7,742 |
| North Carolina----- | 50,762 | 37.14 | 22,213 | 24,796 | 97,996 | 75,541 | 72.55 | 18.36 | 19,075 | 5,019 | 46.34 | 2,583 | 9,385 | 90.72 | 1,086 |
| North Dakota----- | 7,506 | 82.86 | 7,237 | 1,668 | 6,306 | 4,883 | 137.46 | 36.36 | 2,705 | 109 | 68.39 | 90 | 1,028 | 60.32 | 6,342 |
| Ohio----- | 90,453 | 65.92 | 21,299 | 83,045 | 63,622 | 43,782 | 94.60 | 23.29 | 22,347 | 3,686 | 84.26 | 2,854 | 1,883 | 76.01 | 7,381 |
| Oklahoma----- | 93,348 | 68.91 | 79,798 | 16,747 | 57,579 | 43,782 | 100.70 | 29.29 | 19,419 | 1,883 | 84.45 | 1,971 | 8,248 | 91.30 | 4,188 |
| Oregon----- | 17,915 | 83.10 | 16,867 | 3,240 | 18,849 | 14,194 | 143.20 | 39.81 | 7,425 | 292 | 84.87 | 301 | 4,316 | 59.11 | 10,077 |
| Pennsylvania----- | 48,865 | 51.50 | 30,560 | 39,201 | 133,651 | 116,839 | 116.82 | 29.85 | 48,419 | 17,545 | 62.66 | 13,304 | 15,296 | 59.11 | 10,077 |
| Puerto Rico----- | 41,254 | 8.12 | 4,043 | 47,505 | 174,615 | 140,242 | 13.66 | 3.72 | 7,418 | 1,837 | 8.03 | 173 | 21,102 | 8.73 | 2,175 |
| Rhode Island----- | 7,199 | 70.13 | 6,183 | 4,475 | 16,028 | 11,939 | 124.14 | 34.66 | 6,108 | 136 | 71.77 | 113 | 2,335 | 76.81 | 1,875 |
| South Carolina----- | 35,419 | 37.89 | 16,121 | 9,493 | 37,675 | 29,575 | 55.85 | 14.07 | 5,804 | 1,733 | 41.96 | 879 | 7,763 | 34.81 | 3,176 |
| South Dakota----- | 9,717 | 51.89 | 5,889 | 3,080 | 10,512 | 7,949 | 96.39 | 28.24 | 3,206 | 183 | 51.84 | 110 | 1,002 | 52.12 | 5,579 |
| Tennessee----- | 57,212 | 40.36 | 26,060 | 20,153 | 74,262 | 55,929 | 69.29 | 18.80 | 15,563 | 2,901 | 44.19 | 1,497 | 5,733 | 43.05 | 2,401 |
| Texas----- | 224,712 | 47.08 | 124,395 | 26,415 | 108,901 | 82,811 | 68.69 | 16.66 | 20,994 | 6,047 | 51.02 | 3,777 | 2,904 | 46.78 | 7,741 |
| Utah----- | 8,656 | 63.48 | 6,832 | 3,191 | 11,372 | 8,483 | 123.37 | 34.62 | 4,549 | 219 | 68.28 | 186 | 1,913 | 66.95 | 1,542 |
| Vermont----- | 6,110 | 50.92 | 3,815 | 1,164 | 4,081 | 3,073 | 92.52 | 26.39 | 1,184 | 140 | 53.41 | 89 | 706 | 52.97 | 409 |
| Virgin Islands----- | 620 | 18.66 | 144 | 219 | 785 | 663 | 33.29 | 9.29 | 1,104 | 21 | (?) | 6 | 103 | 20.39 | 26 |
| Virginia----- | 15,541 | 36.60 | 6,774 | 9,154 | 36,698 | 28,751 | 73.73 | 18.64 | 7,750 | 1,213 | 42.86 | 620 | 5,607 | 42.39 | 2,726 |
| Washington----- | 55,019 | 85.46 | 58,370 | 11,670 | 40,414 | 30,044 | 151.66 | 43.79 | 18,597 | 701 | 97.13 | 919 | 5,890 | 97.87 | 6,822 |
| West Virginia----- | 21,355 | 33.95 | 8,694 | 19,274 | 74,268 | 57,823 | 90.49 | 23.49 | 19,085 | 1,097 | 38.24 | 496 | 7,563 | 38.62 | 3,400 |
| Wisconsin----- | 37,850 | 76.58 | 33,316 | 8,305 | 30,042 | 22,546 | 155.96 | 43.11 | 13,566 | 1,034 | 78.44 | 964 | 1,250 | 115.16 | 1,651 |
| Wyoming----- | 3,653 | 70.02 | 3,093 | 712 | 2,496 | 1,881 | 127.53 | 36.38 | 1,003 | 64 | 78.31 | 57 | 510 | 74.68 | 433 |

¹ Includes as recipients the children and 1 parent or other adult relative in families in which the requirements of at least 1 such adult were considered in determining the amount of assistance.

² Average payment not computed on base of less than 50 recipients.

| | | | | | | | | | | | | | |
|---------------------|---------|--------|--------|-------|--------|---------|-------|---------|-------|--------|-------|--------|--------|
| Missouri..... | 83,521 | 56,091 | 18,253 | 2,174 | 7,002 | 84,749 | 65.8 | 25,246 | 72.0 | 4,005 | 53.9 | 10,698 | 64.91 |
| Montana..... | 6,275 | 3,507 | 1,859 | 208 | 7,700 | 6,419 | 56.0 | 3,275 | 55.1 | 391 | 52.2 | 1,327 | 52.31 |
| Nebraska..... | 11,337 | 7,707 | 2,449 | 485 | 697 | 12,890 | 59.8 | 3,785 | 65.7 | 938 | 50.8 | 1,186 | 57.81 |
| Nevada..... | 1,931 | 1,241 | 616 | 74 | | 2,260 | 55.0 | 973 | 64.8 | 174 | 42.2 | | 1 |
| New Hampshire..... | 3,536 | 2,413 | 940 | 113 | 170 | 4,696 | 51.1 | 1,756 | 52.2 | 230 | 50.0 | 401 | 43.81 |
| New Jersey..... | 19,430 | 9,986 | 6,472 | 471 | 2,501 | 20,875 | 47.9 | 14,676 | 45.9 | 979 | 48.4 | 5,698 | 43.81 |
| New Mexico..... | 11,857 | 4,613 | 6,096 | 163 | 8,955 | 7,024 | 65.1 | 8,541 | 69.5 | 290 | 63.9 | 1,467 | 62.31 |
| New York..... | 126,891 | 42,979 | 62,597 | 2,291 | 19,024 | 111,805 | 40.5 | 129,142 | 50.1 | 5,818 | 40.8 | 49,805 | 40.81 |
| North Carolina..... | 41,147 | 17,299 | 16,024 | 2,048 | 5,776 | 23,394 | 73.4 | 20,556 | 78.3 | 3,071 | 67.2 | 8,356 | 69.91 |
| North Dakota..... | 5,682 | 3,576 | 1,574 | 54 | 477 | 7,759 | 47.4 | 2,933 | 53.4 | 102 | 53.7 | 1,188 | 42.31 |
| Ohio..... | 64,995 | 41,937 | 16,767 | 1,894 | 4,396 | 75,875 | 57.5 | 24,717 | 68.7 | 3,222 | 58.5 | 7,171 | 61.81 |
| Oklahoma..... | 63,558 | 45,402 | 13,089 | 1,976 | 4,090 | 82,059 | 54.6 | 20,382 | 65.0 | 2,039 | 47.2 | 7,803 | 51.21 |
| Oregon..... | 15,082 | 8,658 | 4,206 | 153 | 2,065 | 18,357 | 47.7 | 8,504 | 50.2 | 325 | 47.2 | 4,707 | 44.51 |
| Pennsylvania..... | 62,036 | 20,738 | 31,480 | 3,641 | 6,177 | 33,915 | 63.9 | 54,195 | 59.8 | 14,022 | 26.7 | 11,760 | 55.21 |
| Puerto Rico..... | 3,312 | 1,568 | 2,791 | 69 | 884 | 4,456 | 233.2 | 8,228 | 233.6 | 204 | 255.0 | 2,595 | 234.81 |
| Rhode Island..... | 7,879 | 3,173 | 3,707 | 60 | 939 | 6,006 | 49.1 | 6,540 | 56.8 | 124 | 51.0 | 2,055 | 48.21 |
| South Carolina..... | 20,655 | 12,338 | 5,074 | 658 | 2,597 | 17,063 | 72.7 | 6,391 | 79.4 | 943 | 70.0 | 3,526 | 73.31 |
| South Dakota..... | 6,940 | 4,096 | 2,343 | 82 | 420 | 6,355 | 65.5 | 3,500 | 66.5 | 122 | 64.9 | 652 | 64.31 |
| Tennessee..... | 36,110 | 20,199 | 12,985 | 1,115 | 1,810 | 27,922 | 72.1 | 16,840 | 77.5 | 1,594 | 69.8 | 2,700 | 69.11 |
| Texas..... | 110,616 | 88,378 | 18,790 | 2,700 | 7,749 | 128,925 | 68.9 | 22,842 | 79.3 | 3,947 | 67.2 | 1,256 | 61.41 |
| Utah..... | 7,640 | 4,033 | 2,626 | 108 | 874 | 7,131 | 58.0 | 4,928 | 54.1 | 195 | 55.7 | 1,615 | 55.11 |
| Vermont..... | 3,792 | 2,570 | 890 | 62 | 271 | 4,030 | 64.9 | 1,325 | 65.3 | 94 | 64.3 | 32 | 63.81 |
| Virgin Islands..... | 189 | 91 | 80 | 3 | 15 | 184 | 49.5 | 143 | 49.9 | 8 | 48.5 | 32 | 49.71 |
| Virginia..... | 14,449 | 5,313 | 6,588 | 477 | 2,072 | 7,549 | 70.4 | 8,716 | 75.9 | 713 | 66.7 | 3,135 | 66.41 |
| Washington..... | 39,377 | 26,822 | 9,315 | 399 | 2,841 | 60,769 | 43.4 | 20,047 | 47.3 | 965 | 40.5 | 7,183 | 39.11 |
| West Virginia..... | 24,481 | 7,123 | 14,332 | 375 | 2,650 | 9,077 | 75.1 | 19,605 | 72.9 | 516 | 72.7 | 3,616 | 72.41 |
| Wisconsin..... | 24,997 | 16,926 | 6,922 | 566 | 642 | 36,041 | 48.7 | 14,819 | 47.9 | 1,040 | 48.7 | 1,770 | 35.51 |
| Wyoming..... | 2,678 | 1,811 | 580 | 53 | 254 | 3,312 | 54.8 | 1,118 | 53.5 | 61 | 53.8 | 465 | 54.41 |

¹ Based on checks issued (excluding any amounts paid during the fiscal year for an earlier or subsequent year); may differ slightly from fiscal-year expenditures from Federal funds reported by States.

² Less than 50 percent because half of total expenditures exceeded the statutory limitation on the aggregate amount of Federal funds for all programs that can be made available for a fiscal year under legislation in effect during fiscal year 1958.

Table 8.—Maternal and child health and welfare services: Grants to States for maternal and child health services, services for crippled children, and child welfare services under the Social Security Act, by program and State, fiscal year 1958¹

[In thousands]

| State | Maternal and child health services | Crippled children's services | Child welfare services |
|---------------------------|------------------------------------|------------------------------|------------------------|
| United States..... | \$16,336.4 | \$14,846.7 | \$9,539.5 |
| Alabama..... | 536.6 | 504.0 | 297.5 |
| Alaska..... | 120.8 | 193.2 | 47.6 |
| Arizona..... | 151.2 | ----- | 90.4 |
| Arkansas..... | 276.8 | 266.5 | 210.4 |
| California..... | 833.6 | 731.2 | 342.6 |
| Colorado..... | 313.4 | 166.4 | 113.9 |
| Connecticut..... | 257.9 | 214.5 | 90.1 |
| Delaware..... | 111.9 | 94.6 | 51.3 |
| District of Columbia..... | 201.9 | 169.1 | 33.3 |
| Florida..... | 379.3 | 247.9 | 184.2 |
| Georgia..... | 449.8 | 460.4 | 331.8 |
| Hawaii..... | 206.0 | 136.5 | 56.4 |
| Idaho..... | 165.4 | 106.4 | 32.7 |
| Illinois..... | 468.3 | 448.6 | 295.0 |
| Indiana..... | 309.7 | 242.3 | 119.0 |
| Iowa..... | 168.6 | 288.9 | 214.6 |
| Kansas..... | 178.1 | 199.1 | 151.8 |
| Kentucky..... | 368.7 | 427.5 | 307.2 |
| Louisiana..... | 371.9 | 356.2 | 240.0 |
| Maine..... | 133.8 | 114.8 | 90.2 |
| Maryland..... | 396.1 | 284.5 | 141.8 |
| Massachusetts..... | 417.7 | 311.5 | 98.4 |
| Michigan..... | 515.7 | 502.1 | 325.0 |
| Minnesota..... | 335.0 | 400.8 | 233.8 |
| Mississippi..... | 400.9 | 297.7 | 274.4 |
| Missouri..... | 317.6 | 307.3 | 237.9 |
| Montana..... | 123.3 | 144.2 | 81.8 |
| Nebraska..... | 115.1 | 131.2 | 77.5 |
| Nevada..... | 150.6 | 67.6 | 21.0 |
| New Hampshire..... | 97.6 | 105.2 | 61.3 |
| New Jersey..... | 205.7 | 205.4 | 109.0 |
| New Mexico..... | 203.9 | 140.2 | 95.3 |
| New York..... | 742.5 | 560.4 | 283.3 |
| North Carolina..... | 647.3 | 613.1 | 450.3 |
| North Dakota..... | 113.6 | 105.5 | 99.9 |
| Ohio..... | 563.4 | 497.1 | 375.4 |
| Oklahoma..... | 240.8 | 257.0 | 179.0 |
| Oregon..... | 148.0 | 176.1 | 111.3 |
| Pennsylvania..... | 713.4 | 657.6 | 441.8 |
| Puerto Rico..... | 382.7 | 413.5 | 277.5 |
| Rhode Island..... | 127.6 | 93.8 | 48.0 |
| South Carolina..... | 373.2 | 368.8 | 261.8 |
| South Dakota..... | 73.3 | 79.0 | 94.6 |
| Tennessee..... | 521.9 | 474.6 | 303.1 |
| Texas..... | 699.5 | 706.0 | 476.8 |
| Utah..... | 147.5 | 175.6 | 77.5 |
| Vermont..... | 105.6 | 91.9 | 64.1 |
| Virgin Islands..... | 93.3 | 87.5 | 34.9 |
| Virginia..... | 522.1 | 398.5 | 263.1 |
| Washington..... | 259.4 | 170.6 | 140.5 |
| West Virginia..... | 233.4 | 247.5 | 224.6 |
| Wisconsin..... | 237.0 | 322.4 | 241.3 |
| Wyoming..... | 108.0 | 84.4 | 33.5 |

¹ Based on checks issued less refunds.

Table 9.—Federal credit unions: Number of members, amount of assets, amount of shares, and amount of loans outstanding, Dec. 31, 1935–57¹

| Year | Number of operating Federal credit unions | Number of members | Assets | Shares | Loans outstanding |
|-----------|---|-------------------|---------------|---------------|-------------------|
| 1935..... | 772 | 119,420 | \$2,372,100 | \$2,228,400 | \$1,834,200 |
| 1936..... | 1,751 | 309,700 | 9,158,100 | 8,510,900 | 7,343,800 |
| 1937..... | 2,313 | 483,920 | 19,264,700 | 17,649,700 | 15,695,300 |
| 1938..... | 2,760 | 632,050 | 29,629,000 | 26,876,100 | 23,830,100 |
| 1939..... | 3,182 | 850,770 | 47,810,600 | 43,326,900 | 37,673,000 |
| 1940..... | 3,756 | 1,127,940 | 72,530,200 | 65,805,800 | 55,818,300 |
| 1941..... | 4,228 | 1,408,880 | 106,052,400 | 97,208,900 | 69,484,700 |
| 1942..... | 4,145 | 1,356,940 | 119,591,400 | 109,822,200 | 43,052,500 |
| 1943..... | 3,938 | 1,311,620 | 127,329,200 | 117,339,100 | 35,376,200 |
| 1944..... | 3,815 | 1,306,000 | 144,365,400 | 133,677,400 | 34,438,400 |
| 1945..... | 3,757 | 1,216,625 | 153,103,120 | 140,613,962 | 35,155,414 |
| 1946..... | 3,761 | 1,302,132 | 173,166,459 | 159,718,040 | 56,800,937 |
| 1947..... | 3,845 | 1,445,915 | 210,375,571 | 192,410,043 | 91,372,197 |
| 1948..... | 4,058 | 1,628,339 | 258,411,736 | 235,008,368 | 137,642,327 |
| 1949..... | 4,495 | 1,819,606 | 316,362,504 | 285,000,934 | 186,218,022 |
| 1950..... | 4,984 | 2,126,823 | 405,834,976 | 361,924,778 | 263,735,838 |
| 1951..... | 5,398 | 2,463,898 | 504,714,580 | 457,402,124 | 299,755,775 |
| 1952..... | 5,925 | 2,853,241 | 662,408,869 | 597,374,117 | 415,062,315 |
| 1953..... | 6,578 | 3,255,422 | 854,232,007 | 767,571,092 | 573,973,529 |
| 1954..... | 7,227 | 3,598,790 | 1,033,179,042 | 931,407,456 | 681,970,336 |
| 1955..... | 7,806 | 4,032,220 | 1,267,427,045 | 1,135,164,876 | 863,042,049 |
| 1956..... | 8,350 | 4,502,210 | 1,529,201,927 | 1,366,258,073 | 1,049,188,549 |
| 1957..... | 8,735 | 4,897,689 | 1,788,768,332 | 1,589,190,585 | 1,257,319,328 |

¹ Data for 1935–44 on membership, assets, shares, and loans outstanding are partly estimated.**Table 10.—Federal credit unions: Assets and liabilities, Dec. 31, 1957, and Dec. 31, 1956**

| Assets and liabilities | Amount | | | Percentage distribution | |
|--|-----------------|-----------------|--------------------|-------------------------|---------------|
| | Dec. 31, 1957 | Dec. 31, 1956 | Change during year | Dec. 31, 1957 | Dec. 31, 1956 |
| Number of operating Federal credit unions..... | 8,735 | 8,350 | 385 | ----- | ----- |
| Total assets..... | \$1,788,768,332 | \$1,529,201,927 | \$259,566,405 | 100.0 | 100.0 |
| Loans to members..... | 1,257,319,328 | 1,049,188,549 | 208,130,779 | 70.3 | 68.6 |
| Cash..... | 135,115,485 | 118,900,595 | 16,214,890 | 7.5 | 7.8 |
| United States bonds..... | 90,921,596 | 88,009,631 | 2,911,965 | 5.1 | 5.8 |
| Savings and loan shares..... | 251,614,676 | 228,565,099 | 23,049,577 | 14.0 | 14.9 |
| Loans to other credit unions..... | 38,827,893 | 31,647,416 | 7,180,477 | 2.2 | 2.1 |
| Land and buildings..... | 4,587,837 | 3,449,730 | 1,138,107 | .3 | .2 |
| Other assets..... | 10,381,517 | 9,440,907 | 940,610 | .6 | .6 |
| Total liabilities..... | 1,788,768,332 | 1,529,201,927 | 259,566,405 | 100.0 | 100.0 |
| Notes payable..... | 41,281,715 | 34,572,441 | 6,709,274 | 2.3 | 2.3 |
| Accounts payable and other liabilities..... | 5,273,781 | 4,344,517 | 929,264 | .3 | .3 |
| Shares..... | 1,589,190,585 | 1,366,258,073 | 222,932,512 | 88.9 | 89.3 |
| Regular reserve..... | 62,344,129 | 49,668,568 | 12,675,561 | 3.5 | 3.2 |
| Special reserve for delinquent loans..... | 3,674,115 | 3,469,216 | 204,899 | .2 | .2 |
| Other reserves ¹ | 2,636,571 | 692,884 | 1,843,687 | .1 | .1 |
| Undivided earnings..... | 84,467,436 | 70,196,228 | 14,271,208 | 4.7 | 4.6 |

¹ Reserve for contingencies and special reserve for losses.

Public Health Service

Health of the Nation

THE AMERICAN PEOPLE continued their march toward better health during the past year. The Nation's health status remained high, despite the impact of a worldwide influenza epidemic in the fall and winter of 1957. Public interest in health activities continued to grow and expenditures for health purposes again rose. This interest and support resulted in significant progress in such major areas as research, health manpower and facilities, and public health practice.

Medical research probed deeper into the basic processes affecting life and health. At the same time, there was widespread study of specific techniques to add to the skill, equipment, and resources of the Nation's health workers.

The growth of training programs, particularly those aided by the Federal Government, helped to expand the national reservoir of health manpower and to increase its professional competence.

The Nation's health facilities, especially those geared to the needs of long-term care and chronic disease, continued to expand.

Wider use of new scientific knowledge helped save lives, prevent disability, and restore some measure of independence to thousands of ill and handicapped people. Health leaders agreed, however, that an unfinished task of utmost importance is to reduce the lag between the discovery and application of knowledge.

The responsibilities of the Public Health Service continued to grow in response to these and other current challenges to health. Although there were few new legislative measures in fiscal year 1958, increased appropriations and administrative actions resulted in the expansion of several programs. These developments and other significant activities of the year are covered in the pages that follow.

HEALTH RECORD

The vital rates that measure the Nation's health have shown a very different picture for the two extremes of life during recent years. Great gains in life expectancy for the young have been accompanied by increases in death rates for conditions characteristic of the latter part of life.

The death rates for infants under 1 year and for mothers in child-birth, for example, have declined in the last decade. The infant death rate dropped 18 percent, from 32.2 deaths per 1,000 live births in 1947 to 26.3 in 1957.¹ The maternal mortality rate for 1957 was 3.9 per 10,000 live births, compared with 13.5 in 1947—a 71-percent drop.

Deaths from childhood disease also declined sharply. Scarlet fever and streptococcal sore throat, diphtheria, whooping cough, and measles caused about 8 deaths for every 100,000 youngsters under 15 years of age in 1947. In 1957, however, these diseases were responsible for only about 1 death per 100,000.

The death rates for a number of infectious diseases which affect the young and the old alike have also dropped since 1947. Thus, the death rate for tuberculosis was 7.8 per 100,000 population in 1957, compared with 8.4 in 1956 and 33.5 in 1947. There have also been proportionately fewer deaths from syphilis, particularly among infants. The epidemic of Asian influenza last year produced an increase in the influenza and pneumonia death rate (except for pneumonia of the newborn) from 28.2 per 100,000 in 1956 to 35.8 in 1957. It also caused a much larger increase in the number of deaths in older people with cardiovascular disease.

Death rates for suicide, homicide, and accidents have decreased since 1947. While suicides increase with age, homicide is more likely to occur in the middle years. Most fatal accidents, except for motor-vehicle accidents, tend to occur at the two ends of life. No definite trend has been apparent for motor-vehicle accidents, but the death rate has remained at a high level. It was 22.7 per 100,000 in 1957 and 22.8 in 1947. For all other accidents, however, the death rate dropped from 46.4 in 1947 to 33.2 in 1957.

In contrast to the generally favorable picture in the infectious diseases, the chronic diseases characteristic of the latter part of life continued to take heavy toll of lives. Together, diseases of the heart and blood vessels and cancer accounted for 70 percent of all deaths in 1957. The death rate for the major cardiovascular-renal diseases was 523.7 per 100,000 in 1957, compared with 491.0 in 1947. The 1957 cancer death rate was 148.7, substantially higher than the 132.3 rate of 10 years ago.

All the trends in the Nation's health are summed up in the general death rate and in life expectancy figures. Over the last few years,

¹ All vital statistics are given for the calendar year.

these indicators have remained virtually unchanged, showing a stand-off between the forces working for longer life and the forces working for death. Since 1946 the general death rate has not risen above 10.1 per 1,000 population nor fallen below 9.2; it has varied only between 9.2 and 9.6 since 1952. The rate stood at 9.6 in 1957, slightly higher than the 9.4 rate in 1956.

The average length of life for the entire population increased from 66.8 years in 1947 to 69.6 years in 1954, but the figure has remained practically unchanged since then. It was 69.5 years in 1955 and 69.6 years in 1956 (the last year for which the life span has been calculated). The average life expectancy in 1956 was 67.3 years for white males, 73.7 for white females, 61.1 for nonwhite males, and 65.9 for nonwhite females. The life span for women has been increasing more rapidly than for men, and the gap between the white and the nonwhite population has continued to decrease.

BIRTHS, MARRIAGES, AND DIVORCES

The Nation's birth rate has remained at a high level since the end of World War II, while the death rate has declined slightly. About 4,301,000 live births occurred in 1957, for a birth rate of 25.3 per 1,000 population. There were 4,218,000 births in 1956, and a rate of 25.2 per 1,000. Since there were 9.6 deaths per 1,000 people in 1957, or a total of 1,633,128 deaths, the rate of natural increase came to 15.7 persons per 1,000—slightly lower than last year's rate of 15.9. The highest rate of increase in a single year—16.5—during the past 25 years for which national data are available occurred in 1947.

The estimate of marriages performed in 1957 was 1,518,000, or 4.2 percent less than the figure for 1956. The marriage rate was 8.9 per 1,000 population, compared with 9.5 in 1956.

The estimated number of divorces granted in 1957 was 381,000, less than 1 percent below the figure for 1956.

INFLUENZA

In the fall and winter of 1957, the United States experienced its most widespread influenza epidemic in 40 years, caused by a new Asian strain of the influenza virus. The Service's National Health Survey estimated that about 80 million people spent one or more days in bed between July 1 and the end of the year from acute upper respiratory illnesses, a substantial amount of which was Asian influenza.

Localized outbreaks were reported in this country during the summer, and the first community-wide outbreak occurred in a Louisiana parish in early August. For the Nation as a whole, the peak of the epidemic was reached in mid-October when National Health Survey estimates indicated that some 12 million people were in bed during the week with respiratory illness, chiefly influenza.

The Nation had been alerted to the danger of an epidemic in the spring when the disease first appeared in the Far East. A number of steps were taken by the Nation's health leaders to minimize the impact of the epidemic which was expected in this country. A new vaccine was developed against Asian influenza and rushed into production by the pharmaceutical industry. Vaccine began to be available by September and about 60 million doses were produced by the end of the year.

In the fall of 1957, when the vaccine was in short supply, the producers agreed to a voluntary allocation system. This was administered by the Public Health Service and enabled each State to receive supplies of vaccine which were proportionate to the size of its population. Recommended priorities were also established to give first preference to those people who were essential in maintaining health and other basic community services and to people who constituted special medical risks.

Cooperative plans were also made for other measures to meet the anticipated epidemic. Beginning early in the spring, the Public Health Service held a series of meetings with representatives of the medical profession, State health officials, voluntary health agencies, hospital administrators, and the producers of influenza vaccine. Plans were developed for the use of the vaccine, the control of outbreaks, and for emergency medical care needs in local communities. An information program was carried on to keep the public informed about the nature of the disease and the precautions, including vaccination, which could be taken. A reporting system was established so that the extent and virulence of the epidemic could be checked. And State and other viral laboratories were equipped with diagnostic reagents to assist in rapid detection of outbreaks.

As a result of these activities, a comprehensive program was developed before Asian influenza made its appearance in the United States. Even though the epidemic struck earlier than had been expected, the Nation was well prepared to deal with it.

Partly because of the preparations, and also because the virus strain was generally mild, no serious disruption of community life occurred, and medical and hospital facilities were not overtaxed. The most serious consequences occurred after the epidemic phase of the disease had ended. During January and February of 1958 the death rates from influenza and pneumonia rose markedly. Although the reason for this rise could not be definitely ascertained, epidemiologists believed that the virus was reaching elderly people who had been protected from earlier exposure.

A post-epidemic evaluation of what the Nation had gained from dealing with this epidemic included the following:

1. Knowledge and experience which will enable health leaders to predict with greater confidence the course of future epidemics.

2. A stronger research program and improved laboratory facilities for the study, diagnosis, and surveillance of virus diseases.

3. A tested pattern of organization which mobilizes public health, medical, hospital, voluntary health agency and drug industry resources into a coordinated action program.

4. Evidence that American industry is capable of producing 60 million doses of influenza vaccine in 6 months and probably could produce even more in an extreme emergency.

POLIOMYELITIS

The incidence of paralytic poliomyelitis continued to decline during 1957 as more and more people took advantage of the protection afforded by the poliomyelitis vaccine. The total number of paralytic cases reported in 1957 was 2,499; this was a 68-percent reduction from the 7,911 cases reported in 1956 and an 82-percent reduction from the 13,850 cases reported in 1955, the year the vaccine first became available.

By the end of 1957, at least 45 million people under 40 years of age had had one or more injections of the vaccine; most of them had had the full initial course of three injections and a few had had a fourth injection. However, there remained some 66 million people under 40 who had had no vaccine at all. Consequently, the Advertising Council's vaccination promotion campaign, which was initiated in the fall of 1957 under the sponsorship of the Public Health Service, the American Medical Association, and the National Foundation for Infantile Paralysis, was continued through the spring of 1958.

Following a brief period of shortage in the spring of 1957, vaccine remained in plentiful supply throughout the year. By early 1958, all manufacturers were reporting inventories of unshipped vaccine.

Funds and Personnel

A total of \$718.4 million was available to the Public Health Service in 1958. (See table 1, p. 145.) About \$565.9 million of this amount was in appropriations and authorizations. The balance was made up of reimbursements for services rendered to other agencies and in unobligated balances from previous years.

About two-thirds of the total amount available was allocated to agencies and institutions outside the Federal Government in the form of grants for research and training, for State and community public health programs, and for the construction of hospital and medical facilities and of sewage treatment plants. The remainder supported the direct activities of the Service, including the operation of PHS hospitals, foreign and interstate quarantine, and Indian health services.

At the close of fiscal year 1958 there were 24,483 full-time employees in the Public Health Service. (See table 2, p. 147.) This number included 1,478 members of the regular Commissioned Corps of the Service, 1,883 members of the Reserve Corps on active duty, 142 members of the Commissioned Reserve on temporary training duty, and 20,980 full-time Civil Service employees.

National Library of Medicine

A major change in the National Library of Medicine operations occurred in September 1957, when interlibrary loans and photoduplication service were unified into a single system. Integration of the two services provided a more efficient instrument for making the Library's extraordinarily complete resources of medical literature available throughout the country. Implementation of the new service was expedited by conversion of photoduplication processes to Xerography and by accompanying procedural changes designed to speed the processing of requests for interlibrary loans.

IMPROVEMENT OF INDEXING OPERATIONS

With financial assistance in the form of a grant of \$73,800 from the Council on Library Resources, Incorporated, the Library began a 2-year program for improving its indexing publication mechanisms. Aims of the project are to experiment with and develop mechanical systems for the filing and layout operations involved in preparing printer's copy for the *Current List of Medical Literature*; to achieve maximum convenience of consultation through improved format; to improve methods for preparing cumulative indexes; and to seek methods for rapid retrieval and publication of material relating to specialties within the medical field.

FOREIGN LANGUAGE MATERIALS

The Library continued to increase its procurement of Soviet medical literature by resumption of an exchange relationship with the State Central Medical Library in Moscow, and by enlarging existing agreements with Eastern European countries. Of the foreign language journal articles indexed last year in the *Current List of Medical Literature*, 11,000 were from 156 Russian and other East European publications.

NEW BUILDING PROGRAM

Construction funds for the new library building were included in appropriations for fiscal year 1959. Final working drawings for the new building are expected to be completed by December 1958, and it is anticipated that the structure will be completed by the summer of 1961. Estimated cost has been set at \$7,300,000 for a building of approximately 232,000 square feet consisting of five levels, two above

and three below ground, to be located on the grounds of the National Institutes of Health.

PROGRAM STATISTICS

During fiscal year 1958 the National Library of Medicine acquired 13,447 books, 75,028 serial pieces, and 1,157 new serial titles; it purchased 469 old and rare items for its History of Medicine Division, cataloged 23,595 titles, and added 1,492 pictures and portraits to the art collection. The number of volumes circulated to users of the Library was 111,594; 8,205 reference questions were answered and 334 bibliographies were compiled. There were 12,199 major entries prepared for the annual volume of the *National Library of Medicine Catalog*, and 110,708 items were published in the *Current List of Medical Literature* from 1,594 journal titles. Over 1.3 million pages of medical literature were microfilmed in response to 64,421 requests.

Public Health Methods

The Division of Public Health Methods has principal staff responsibility for program planning in the Office of the Surgeon General. In discharging this responsibility, the Division conducts selected studies on public health needs and problems, analyzes economic, social, and public policy trends which affect Public Health Service programs, and cooperates in public health planning activities.

NATIONAL HEALTH SURVEY

In June 1958, the U. S. National Health Survey, located in this Division, completed its initial year of operation on an annual basis. During the year, preliminary reports were published on the prevalence and incidence of acute upper respiratory diseases, on physician visits, dental care, persons injured, and the extent of disability in the population. Preliminary studies indicated that persons visit physicians at a rate equivalent to slightly under five visits a year, and visit dentists at a rate equivalent to 1.6 visits per person per year. About 25 million persons were injured during the last 6 months of 1957, according to National Health Survey data. Moreover, during the period July–September 1957, an estimated total of 662.8 million person-days of restricted activity due to illness or injury occurred. In other parts of the Survey, field work had been completed, by the end of the fiscal year, on a number of contract studies relating to methodological problems of a projected health examination survey, alternate methods of collecting morbidity data, and household interviewing.

HEALTH RESOURCE STUDIES

In a study of health resources, the future supply of physicians in the continental United States was predicted under four series of esti-

mates of graduates of medical schools. Under the assumption of graduation rates currently predicted for existing and planned schools, the number of physicians in 1975 will be 290,409—a rate of 127 per 100,000 population, in contrast to the 1955 rate of 132 per 100,000. If the number of graduates were to be increased sufficiently to regain and maintain the 1955 ratio of physicians to population, the equivalent of 20 new medical schools would have to be added to the 87 scheduled for existence in 1965.

As part of its study of health services, the Division provided an executive secretary for a National Conference on Homemaker Services, organized under the aegis of the Children's Bureau with the joint sponsorship of 7 other units of the Department, and 26 national voluntary agencies. In preparation for the Conference, the Division collected data from the 143 agencies which provided this service in the spring of 1958. A total of 110 programs—3 out of 4—are under private auspices. During the study week, a total of 1,715 homemakers was employed and served 2,188 families.

In preparation for a monograph that will show methods for collecting information on community needs of and resources for long-term patients, questionnaires designed in the Division were tested by three local communities, which conducted their own surveys. The information includes data on institutions serving long-term patients, outpatient facilities, public health nursing agencies, vocational rehabilitation agencies, and other resources.

Several activities of the Division during the past year were concerned with the health problems of older adults in the population. Data were compiled on the health status of the aged and the interrelationship of health and socioeconomic factors. Among the gerontological health problems, economic status continues to be prominent due to the composite effect of the increase of expenditures for medical care as age advances, a consequence of higher rates of disabling and chronic illness among older persons; the comparative decline, with age, in income and in health insurance protection; the tendency of persons with lower income to experience proportionately more illness than those of better economic status.

In collaboration with the Bureau of Labor Statistics, a study is being made of various indexes of medical care prices compiled by public and private agencies, their uses, design, and relation to medical care costs. Medical care expenditures of urban dwellers were also studied during 1958, including differential in medical spending by age, characteristics of large medical expense, dental spending of urban residents, and other aspects of medical expenditures.

National Institutes of Health

The National Institutes of Health conducts medical research in its laboratories at Bethesda, Md., and supports research, training, and research construction in institutions throughout the Nation. Its grants are awarded after careful review by non-Federal groups—study sections composed of technical experts, and advisory councils composed of leaders in science and public affairs.

In fiscal year 1958, changes were made in the advisory structure of NIH to facilitate the administration of research. Boards of scientific counselors were established to advise the Institutes on intramural studies, and two new study sections were created to review the increasing number of grant applications in the fields of genetics and cell biology. A new Division, General Medical Sciences, was created to strengthen support of the sciences basic to medicine; and the Division of Research Grants, responsible for general administration of research grants and fellowships, was reorganized.

In fiscal year 1958, Congress appropriated \$211 million for the Institutes' programs and an additional \$30 million for grants to finance the construction of health research facilities. Research and training grants approved by the Institutes reached an unprecedented level. There were 7,028 research grants and 1,725 training grants, totaling \$134 million.

The first in a series of long-term, university-centered programs to coordinate studies in basic science with others on the social, economic, and behavioral problems affecting the country's aging population was initiated at Duke University.

In support of the worldwide program of malaria eradication, NIH has undertaken an accelerated 5-year search for cheap, effective, nontoxic drugs.

The cancer chemotherapy program, now in its third year of operation, clarified procedures for protecting both the rights of industry and the public interest when chemical agents useful in the control of cancer are developed through Government contracts with industry.

A program of grants for studies in physical biology stimulated the expansion of this increasingly important field.

A modest extension of the postdoctoral research fellowships program has made the awards available to scientists of foreign countries. Fellowships were awarded in 1958 to 13 outstanding medical scientists in Western Europe, permitting them to conduct research in this country. To increase the number of trained scientists in the United States, a general research training program in such areas as pathology, pharmacology, genetics, anesthesiology, epidemiology, and

biometry was established at the graduate level by some American universities with the support of training grants.

A number of facilities for specialized treatment or study were opened during the year. Among these were a residence treatment center for disturbed children, a center for the evaluation of psychopharmacologic agents, and a small field laboratory—the Middle America Research Institute in Panama—for the study of tropical diseases, particularly of virus origin.

The seven Institutes comprising NIH are named for the health problem areas on which they concentrate—allergy and infectious diseases, arthritis and metabolic diseases, heart, cancer, dental research, mental health, and neurological diseases and blindness. Recent developments in these programs, in the supporting divisions, and in the Clinical Center are described in the following sections.

Clinical Center

The 516 research beds of the Clinical Center form a major national resource for medical research. Having attained this maximum-planned bed capacity late in 1957, a particular goal of NIH during 1958 was optimal utilization of the clinical research facility. A series of intensive studies of the many elements involved, together with appropriate action, resulted in the attainment of an average daily census of approximately 400 patients during the last months of the year. This is the patient load considered ideal in terms both of superior clinical study and of the high quality of care required for research patients.

Each year the Clinical Center's importance as an influence for interchange of scientific facts and viewpoints becomes increasingly evident. The number of visitors has increased from about 2,000 in 1953, when the Center was opened, to nearly 10,000 in 1958. Of this number, 31 percent were professionals and 33 percent students in fields related to medicine and medical research. Of particular interest is the fact that 500 of the professional visitors were from 71 foreign countries.

Division of Biologics Standards

The Division of Biologics Standards prescribes and maintains standards to ensure the safety, purity, and potency of commercial biological products. These include vaccines, serums, toxins, antitoxins, and related products, as well as human blood and its derivatives. Close surveillance of production and quality is accomplished through the licensing of both the manufacturer's establishment and his products. Standards for each product are developed by DBS,

and production processes are inspected periodically to ensure compliance with requirements.

Within recent years, the nature of the programs needed to meet these responsibilities has changed considerably. Large-scale use of tissue-culture methods for quantitative assay, serologic diagnosis, and vaccine preparation has greatly expanded the potential range of biologics. Thus, the Division must maintain a research program of sufficient flexibility to provide information as the need arises.

Production of the Asian-strain influenza vaccine in 1957 demonstrated both the research and control functions of DBS. Tests were developed, reference vaccines established, and data from investigations correlated. Specifications for a vaccine containing a hitherto unknown strain of influenza virus were provided for the guidance of industry.

The Division also contributed to the formulation of standards for a vaccine that protects young adults against respiratory illnesses caused by three types of adenovirus. The first license has been granted for its manufacture. Tissue culture methods have been studied in relation to the production and standardization of smallpox vaccine, and to the antigenicity of measles vaccine. Recent discoveries relating to the enteroviruses—the ECHO and Coxsackie groups—indicate that vaccines may also be developed for these agents.

Division of Research Grants

The recent expansion of NIH grants and training programs was reflected during the year in the largest volume of applications yet received. The review procedure was characterized by the same high standards that were established at the beginning of the program in 1946. This was achieved through the appointment of additional advisory groups.

During the year, a General Research Training Program was initiated. It will help stimulate and expand research training in areas basic to the biological and medical sciences as well as in other specialty areas where acute shortages of research-trained manpower exist. Moreover, the acceleration of basic research training will pay dividends in sustained productivity in applied medical and biological research.

The health research facilities program had awarded \$60 million by June 30 of this second fiscal year of operation. Since the grantees matched an average of \$2 for every \$1 received from the Government, the total outlay for federally supported research construction amounted to approximately \$180 million.

Central Services

The Division of Business Operations furnishes NIH scientists with auxiliary management services. Emphasis during the year was on the programming of payroll, financial, personnel, and stock-control data for a giant electronic computer installed in March 1958.

The Division of Research Services provides a wide range of technical, scientific, and engineering skills in support of research at NIH. Major emphasis in 1958 was again given to new construction authorized by Congress. A plant for chemical waste disposal, five animal wings, and special facilities for the production and care of germ-free animals were completed during the year, and construction was begun on a laboratory for biologics control. Planning and design work progressed on a surgical wing for the Clinical Center, a permanent office building, and laboratories for the National Institute of Dental Research. Other developments included the expansion of the Russian scientific translation program.

Institute of Allergy and Infectious Diseases

The microbiological approach is basic to most research by NIAID. Many of this Institute's advances help to answer basic questions for more specialized institutions. The Institute is also exploring new specialties and frontiers. Virology, for example, is opening the way to a more comprehensive understanding of the role of microbial agents in degenerative as well as infectious diseases.

Allergic and infectious diseases are tremendously costly in terms of dollars or human distress. The specter of outbreaks such as the influenza epidemic of 1918, which took millions of lives, gives impetus to influenza research during inter-epidemic periods. In geographic areas linked politically and economically with the United States, diseases such as malaria, schistosomiasis, and filariasis are paramount killers and crippers. The Institute is a world center for research on such problems.

Institute scientists, active on many fronts during the 1957 epidemic of Asian influenza, evaluated vaccine efficacy in infected volunteers. They also developed a more rapid laboratory method of influenza diagnosis. This led to uncovering previously unknown agents, the hemadsorption viruses, apparently prevalent in young children.

The Institute's Rocky Mountain Laboratory at Hamilton, Mont., has developed a new method for purifying viruses, with a view to aiding research directed toward new or improved vaccines. The method employs a filtering column of adsorbent chemicals. Also at this Laboratory, a new vaccine against the virus of Colorado tick fever has been developed to the stage of clinical trials.

The causative agent of toxoplasmosis was demonstrated for the first time in pork muscle. Institute scientists also showed that latent toxoplasmosis organisms can be transmitted by chronically infected rats to their offspring, suggesting the possibility of similar mechanisms in human infection.

Clinicians of the Institute found that intravenous amphotericin brought cure or improvement to several patients with systemic fungal diseases such as histoplasmosis—a significant experimental finding in the absence of other chemotherapy for such infections.

GRANT-SUPPORTED RESEARCH

Allergic (anaphylactic) shock is a hazard to hypersensitive persons receiving drug injections or blood transfusions. Institute grantees at Columbia University have found that certain steroids and tranquilizing drugs protect mice from shock. The investigators are seeking the pharmacologic basis of this protective action.

In grant-supported studies at Louisiana State University, single or multiple infections by whipworm, threadworm, roundworm, and pinworm were effectively treated with a single drug, dithiazanine. This work is particularly promising for the care of patients in institutions where conditions may favor the spread of these intestinal parasites.

Scientists at Children's Hospital in Detroit employed grant funds to develop a method for identifying causative agents in nursery epidemics of infant diarrhea. Fluorescent antibodies in a preprepared solution "spotlight" their corresponding antigens, or disease agents, and rapidly give definitive information upon which treatment can be based.

Heightening concern over staphylococcal infections that resist treatment underscores the importance of studies supported at Harvard University and Boston City Hospital. Erythromycin is suggested as the antibiotic of choice in the clinical trials.

Institute of Arthritis and Metabolic Diseases

During the year, the Institute strengthened its basic research attack on arthritis and other rheumatic diseases, and on the metabolic diseases such as diabetes and gout. In addition, research and training activity was expanded into two new research areas: gastroenterology—the medical specialty dealing with such disorders as peptic ulcer, ulcerative colitis, and regional ileitis—and the new science of physical biology. In the latter field, the techniques of modern physics are helping to solve basic biological problems.

Arthritis and the rheumatic diseases continue to afflict more than 10 million people in the United States. Although the basic cause of arthritis is still unknown, continuing research has led to better forms

of treatment and a more complete understanding of the underlying disease process.

Since cortisone's antirheumatic properties were first discovered in 1949, other steroids—hydrocortisone, prednisone, prednisolone, methylprednisone, triamcinolone—have been developed for the treatment of rheumatoid arthritis. Clinical investigators at the Institute recently completed preliminary studies of still another new steroid, which appears to be even better than its predecessors. Known as dexamethasone, the drug is 25 times more potent than hydrocortisone and 6 times more potent than prednisone. It has been found effective in relieving the characteristic pain and inflammation of rheumatoid arthritis in patients who have received little or no benefit from the other steroids.

Important basic knowledge about gout recently was uncovered by Institute scientists, who found that overproduction of uric acid in the body is the effective metabolic defect in this disease. This has been a controversial point ever since the high blood levels of uric acid were first detected in gout patients. Some scientists believed the excess uric acid was due to insufficient destruction of the acid in the body, and others thought it due to an inability to excrete proper quantities of the material.

Institute clinicians have evaluated a new intravenous preparation of colchicine, an age-old drug for the relief of gout attacks. They found that, by injecting the drug, the attacks could be relieved more promptly and without the distressing gastrointestinal disturbances that often accompany colchicine when taken by mouth.

A few highlights of basic research in the Institute were the determination of how thrombin, the body's essential blood-clotting enzyme, does its work; the recognition of selenium as an important trace element in the diet to prevent dietary liver necrosis in experimental animals; and the discovery that the bones of the human skeleton wear out and are replaced by new bone growth to a much greater degree than previously supposed.

GRANTS AND AWARDS

Diabetes research is one of the primary areas of interest to the Institute. The year's most noteworthy development in this field was the widespread use of the new oral antidiabetic drug tolbutamide. After extensive clinical trials by Institute grantees and other physicians throughout the country, the drug went on the market in June 1957. Today it is used by over 300,000 Americans with diabetes.

The new drug, though not chemically related to insulin, does have the ability to bring about one of insulin's major effects in the body—that of lowering the high level of blood sugar found in diabetes.

Studies by Institute grantees indicate that the drug acts in part by stimulating the body's own insulin-secreting cells in the pancreas.

Other Institute-supported studies have shown that postoperative patients recover more rapidly if the long-accepted semi-starvation method of feeding is replaced by one supplying adequate nutrition. The nitrogen losses that were formerly thought to be the result of operative injury or stress were found to be almost entirely the result of poor nutritional intake. The investigators prevented these losses in their surgical patients by administering intravenous solutions with a high protein and calorie content.

Cancer Institute

Studies in virology, exfoliative cytology, and chemotherapy produced some of the most encouraging advances in the field of cancer ever achieved in a single year.

The relationship between viruses and cancer has become one of the more promising areas of investigation. In one study, laboratory animals developed multiple tumors affecting nearly every organ and tissue after receiving a single injection of an agent that has the properties of a virus. This observation, together with similar ones in the recent past, has stimulated a search for additional viral agents with cancer-producing properties.

Research during the year reaffirmed the importance of exfoliative cytology as a technique for the detection of uterine cervical cancer in its early, unsuspected, and most curable stages. Analysis of the data gathered in a cytologic study of more than 100,000 women showed that invasive uterine cervical cancer may produce no symptoms for 2 to 3 years, but that it can be detected during that time by cytologic examination.

Studies are continuing in an effort to adapt the cytologic technique to the detection of cancer of other body sites, such as the lung, large intestine, bladder, and prostate gland. A quantitative method has been developed which permits the detection and estimation of the number of cancer cells in the circulating blood of cancer patients. This permits completely new approaches to the study of the biological characteristics of clinical cancers.

Research in chemotherapy was directed principally at producing new and more effective anticancer agents and improving procedures for administering drugs to patients. In a laboratory study, administration of dichloroamethopterin produced a marked increase in the survival time of mice with advanced leukemia. This agent is closely related to methotrexate, which continued to produce encouraging results in the treatment of choriocarcinoma, a rare type of uterine tumor that occurs in women during or after pregnancy. One choriocarci-

noma patient treated with methotrexate has remained apparently free of cancer for more than 30 months.

The adoption of a new Departmental patent policy encouraged a substantial increase in industry's participation in chemotherapy research. The Cancer Chemotherapy National Service Center, at the National Cancer Institute in Bethesda, Md., is coordinating the resources of the Nation's leading research institutions, colleges, and the pharmaceutical industry in an intensive effort to find more effective anticancer drugs. Chemicals, fermentation liquors, hormonal agents, and other materials are being studied at the rate of 40,000 per year in the Chemotherapy Service Center's screening program.

Important advances were also made in fundamental research into the nature of normal and malignant cells, the carcinogenic process, and intricate host-tumor relationships.

INSTITUTE RESEARCH

In collaboration with the Division of Biologics Standards, Institute scientists produced multiple tumors in mice and hamsters by injecting them with cell-free tissue culture preparations obtained from certain mouse tumors. The following observations suggest that the tumor-inducing agent used in these studies is a virus. It grows in tissue culture; is destroyed by heat, but not by storage at freezing temperatures; is in the virus size range, as indicated by the filter through which it passes; is not destroyed by antibiotics, which kill bacteria but not viruses; and produces neutralizing antibodies in rabbits.

Within the year a group of Institute scientists reported the results of laboratory studies on the problem of tumor metastasis. Experiments with mice showed that a primary tumor may exert an inhibitory effect on the growth of distant metastases, and that removal of the tumor acts as a stimulus on the metastatic deposit. Another phase of the investigation showed that neither anesthesia nor cortisone administration, nor operative procedure in which the primary tumor was not removed, had any effect on the number of lung metastases. The third study in the series demonstrated that the anticancer drug TSPA was effective in reducing the number of lung metastases when administered several hours after removal of the primary tumor. Metastases were completely prevented in some mice.

Biostatistical studies on nearly 200,000 United States veterans revealed that the death rate for smokers exceeded that for nonsmokers by 32 percent. Mortality was 58 percent higher among cigarette smokers than among nonsmokers, and the smokers showed a death rate from lung cancer 10 times higher than did the nonsmokers.

NCI continued its comprehensive study in Washington County, Md., of the relationship between environmental factors and cancer.

GRANT-SUPPORTED RESEARCH

A National Cancer Institute grantee reported that administration of large amounts of the compounds prednisone and prednisolone produced complete or partial remissions in several patients with acute leukemia. The drugs are newly synthesized hormones closely related to cortisone, which is also useful in treating this disease.

Promising results have been achieved in the treatment of tumor-bearing mice with a new anticancer drug, azauridine. The drug is chemically related to 6-azauracil, which has been used with encouraging results in the treatment of some cancer patients. The synthesis of azauridine was undertaken as part of a research plan to produce and study compounds that might interfere with the metabolism of tumor cells. The scientists reasoned that compounds that hinder the formation or utilization of uracil might prove useful as anticancer agents. This led to the synthesis and testing of 6-azauracil and later to the synthesis of azauridine. The results of studies in mice indicated that azauridine was significantly more effective than 6-azauracil in inhibiting the growth of transplanted mouse tumors.

In another study the use of chemotherapeutic agents in tumor-bearing mice made X-ray therapy more effective. More tumors regressed completely in a group of mice receiving both drugs and radiation than in groups treated by either chemicals or X-rays alone.

A study in animals showed that radioactive sulfur selectively damages cartilage cells. This indicates that radioactive sulfur may also be effective in the treatment of cartilaginous tumors in man.

Institute of Dental Research

The program of the National Institute of Dental Research is directed toward both the prevention and treatment of oral diseases. Thus, research is emphasized which increases basic knowledge of oral biological systems and their relationship to the whole body.

The most important problem in studies of both calcified and soft tissues of the mouth is the magnitude and complexity of the oral microbial flora. Even under normal conditions, saliva contains no less than 500,000,000 microorganisms per cc. Upward of 50 species of organisms have been isolated in saliva to date.

In recognition of the inestimable value of germ-free animals in oral bacteriologic studies, the National Institute of Dental Research undertook in 1958 to study the etiology and mechanism of caries, calculus formation, periodontal disease, and wound healing. Among preliminary findings is the confirmation that caries does not occur in germ-free animals. It may, however, be induced in rats infected orally with a single pure strain of certain streptococci organisms.

The expansion of epidemiologic and biometric studies in 1958 to include selected population groups in India and Alaska is contributing

not only to a better understanding of oral disease patterns among these groups, but also to the further development of methods of assessing periodontal diseases. Paralleling this work is the continuing genetic study of a racially isolated group in Southern Maryland and a new survey of hereditary oral defects in some 5,000 offspring of first-cousin marriages in Hiroshima and Nagasaki, Japan.

In the area of biochemistry, nutritional studies of oral disease are being continued. These suggest that certain proteins and mineral phosphates effect a marked reduction in dental caries. Other investigations in the biochemical field relate to a better understanding of the organic and inorganic composition of saliva, dentin, enamel, and other oral tissues.

Pioneer work in the use of electron and X-ray microscopy in morphologic studies of heretofore unseen crystallites and the supporting organic framework of enamel and dentin is contributing new and significant knowledge. Other investigators are applying new histochemical methods in a study of protein and enzyme components of oral tissues.

In the field of clinical research, more effective means are sought for minimizing the danger of bacteremias subsequent to oral surgery on heart patients. Still other areas of investigation include dental anesthesiology, oral and facial abnormalities, and periodontal disease.

GRANTS AND AWARDS

The Institute increased its support of dental research projects in institutions throughout the country. In the training area, the National Advisory Dental Research Council granted approval for the establishment of a permanent Training Grant Committee to advise on needed expansion and programming to meet rapidly increasing needs for scientific manpower.

Heart Institute

Basic and clinical research was strengthened during 1958 both in the National Heart Institute's laboratories and in those of institutions receiving grants. Training programs were enlarged to increase the supply of much-needed scientific manpower. Activities designed to assist in the application of rapidly developing knowledge from research progressed. Through these primary means, steady gains were made in the effort against diseases of the heart and blood vessels, which now claim more than 800,000 lives a year.

Atherosclerosis, a disease in which fatty deposits on the walls of blood vessels can progressively restrict blood supply to vital centers, is a major cause of death in this country. When it affects the blood vessels supplying the heart, it leads to myocardial infarction, the common form of heart attack. The disease is associated with eleva-

tion of the concentrations of fats in the blood, a subject of intensive research at NHI.

Studies of the effects of adrenalin on fat metabolism have been undertaken, in view of the long-suspected relation between emotional factors and heart disease. Adrenalin, the hormone produced by the adrenal gland during emotional excitement or anger, has been shown to cause a marked increase in the cholesterol content of the blood. The mechanism by which this occurs is not yet clearly understood, but the implications with respect to heart disease may be important. Another kind of adrenalin effect has been shown—namely, a stimulation of the release of fatty acids from depots of fat tissue. Taken together, these findings indicate a central role for adrenalin in the control of fat metabolism and blood-fat concentrations.

It is now well established that the ingestion of large quantities of unsaturated fats can lower blood-fat concentrations quite significantly, but it is not yet known how this comes about. At the Clinical Center, patients with high blood-cholesterol levels are being treated with liquid formula diets containing large quantities of unsaturated fat, and their cholesterol metabolism is being studied with the aid of radioactive-tagged cholesterol molecules. It has been found, contrary to previous notions, that most of the cholesterol excreted is still in its original form and that only a small percentage has been converted to oxidized products (bile acids). In some patients, unsaturated fats increase the amount of cholesterol and of bile acids excreted. Further studies are in progress to clarify the mechanism involved in this promising dietary approach to treatment of high blood-cholesterol levels.

Another approach being explored is the use of inhibitory substances that will decrease the rate at which the body manufactures cholesterol. A number of compounds have been shown effective in suppressing cholesterol production, and one of these, delta-4-cholestenone, proved to have a very interesting side effect. Given in large doses, it suppressed the production of the adrenal hormones. It has been known for some time that cholesterol could be converted to adrenal steroid hormones. The present findings strongly suggest that cholesterol is necessary for their production.

Fats in the diet are absorbed from the intestine and initially shunted to the blood stream in the form of large particles, the chylomicrons. Recent studies demonstrate that the protein contained in chylomicrons is of three kinds, one of which appears to be identical with another protein associated with the fats that are always circulating in the blood. The finding may have significance in relation to the mechanisms by which the body clears the blood stream of newly absorbed fats. Further studies of the chylomicrons show that their removal is probably not piecemeal, but that the entire particle is

removed as a unit and that the tissues responsible for the major uptake will vary with the nutritional state of the animal.

The problem of high blood pressure is being approached in several ways. Substances that inhibit the enzyme monamine oxidase give promise of value in treatment of hypertension. A new diagnostic test of the efficacy of such compounds has been developed which can be safely used in patients. Availability of this test should permit effective screening of potential therapeutic agents. A protein present in human urine and possessing potent activity against high blood pressure has been considerably purified. This material has the capacity to break down other protein molecules. Since it is a naturally occurring compound, it may play a role in regulating blood pressure.

When the heart fails, one of the major effects is an accumulation of water in the tissues. Evidence is strong that malfunction of the kidneys plays an important part in this process and that a number of hormones contribute to the over-all effects. In NHI studies of normal and abnormal kidney function pursued during the past year, an important new theory regarding the way in which the kidney controls its output of water has been developed. Also of importance was the finding that one of the classes of drugs used in the treatment of heart failure has, in addition to its direct effects on the heart, a direct effect on kidney function as well.

The keystone to successful surgical repair of cardiac defects is accurate preoperative diagnosis. The past year has seen the development in the Heart Institute of several new procedures that give the surgeon an accurate indication of the location and size of cardiac defects prior to surgery. These include the application of a radioactive gas, krypton⁸⁵, which the patient inhales for a brief period while blood samples are drawn from the circulation at several points. Nitrous oxide gas has been used in the same way. These procedures tell the surgeon how much blood is passing through an abnormal connection between the two sides of the heart so that the desirability of surgery can be evaluated.

GRANT-SUPPORTED RESEARCH

Efforts to unravel the interrelations of diet, hormones, and atherosclerotic disease continued at many institutions. It is not yet established whether the tendency to atherosclerosis is attributable to an excess of total fat, too high a fat-protein ratio, an imbalance among chemicals in the body such as cholesterol-phospholipid-fatty-acid triglyceride, too much saturated fat, too little unsaturated fat, a lack of essential fatty acids, or some other dietary factor or deficiency. Use of the technique of gas-liquid chromatographic separation of lipids to attack parts of the problem was extended and should lead to important new data.

Studies of the role of the endocrine system—particularly the thyroid, the pituitary-adrenal axis, and the sex glands—in regulating lipid metabolism, were pursued. Trials of estrogens in patients with coronary artery disease gave promising results, and the search continued for new estrogen-like substances that may be used without producing feminization in males or uterine bleeding in females.

An important achievement in hypertension research was the synthesis of angiotensin, a natural blood-pressure raising substance. Availability of angiotensin has opened new approaches to the study of renal pressor mechanisms in high blood pressure.

A new oral diuretic drug, chlorothiazide, has been found effective not only in edema but in high blood pressure. Combined use of this drug with other antihypertensive agents has reduced the blood pressure of some patients formerly refractory to treatment.

Mental Health Institute

Significant progress was made during the year in mental health research, training of needed personnel, and the development of mental health services.

The ultimate goals of investigators in the mental health field are to discover and clarify the mechanisms of psychological development and to determine the origins of human behavior. Important work toward achieving these goals is being done by scientists and grantees of the National Institute of Mental Health. We have learned, for example, that there is no single inherited or environmental determinant of behavior or of psychological functioning, but that behavior results from the complex interplay of a great number of inherited, constitutional, and environmental forces.

RESEARCH PROJECTS GRANTS

The relations among all these forces may be clarified by an NIMH grantee who is studying "imprinting," an extremely rapid form of learning that takes place for a brief period in the early life of many organisms. During this period, both the timing and effectiveness of the process can be altered by changing the environment of the animal—presenting physical or emotional obstacles, administering drugs, etc. Since human development may include stages analogous to the imprinting stage in lower animals, these studies may well clarify some of the effects of early childhood experience on learning and later social behavior.

Another Institute-supported study is concerned with the effects on learning of pre- and postnatal X-irradiation. This study will permit better understanding of the physical and behavioral consequences of irradiation and more precise determination of the times of maximum vulnerability of the growing organism to X-rays.

While behavior is profoundly affected by environmental conditions, it appears to have its physiological correlates as well. Preliminary results of one grant-supported study, for example, indicate that adaptive behavior in the rat can be correlated with the level of the enzyme cholinesterase in the animal's nervous system.

Other studies by NIMH investigators and grantees are concerned with the physiological and psychological roles of a variety of chemical agents in the body. It may well be that disturbances in the metabolism of epinephrine, serotonin, certain amino acids, carbohydrates, or other substances may be responsible for abnormalities in psychological functioning. Credence for this view is found in two recently analyzed forms of mental retardation rooted in abnormal biochemical activity in the body—phenylketonuria and galactosemia.

DIRECT RESEARCH

Recognition of abnormal functioning is dependent upon knowledge of the normal. A significant advance during the year was the discovery of an enzyme which is responsible for the normal metabolism of 70 percent of the epinephrine in the body of the rat. This discovery revealed a hitherto unknown pathway for the transformation of a variety of body metabolites, and will undoubtedly elucidate a number of still unknown biochemical processes. The study is part of a broad program of investigation of the biological aspects of schizophrenia, in which an effort is being made to distinguish between the physiological functioning of schizophrenic patients and normal controls and to contribute knowledge of the biochemical abnormalities, if any, which underlie the schizophrenic process.

Differences in the reaction of the mentally ill and of normal people to various drugs are also being studied by Institute scientists. The results may help clarify the mechanism of action of the tranquilizing and energizing drugs. The Institute's Psychopharmacology Service Center is continuing to stimulate and support research concerned with the synthesis and evaluation of a wide range of psychoactive drugs. Other studies at the Addiction Research Center in Lexington, Kentucky, include evaluations of addicting drugs and attempts to find a nonaddicting analgesic.

COMMUNITY SERVICES

State activities in developing community mental health programs, stimulated by Federal grants-in-aid, have expanded considerably. A total of \$54 million, an all-time high, was appropriated from all sources for these purposes during the past year. NIMH funds constituted only 7.4 percent of this sum. Four States—California, Minnesota, New Jersey, and Vermont—enacted legislation providing for State grants-in-aid to localities for community mental health services.

In September 1957, funds became available, under the provisions of Title V of P. L. 911, for the support of demonstrations and studies designed to improve the care, treatment, and rehabilitation of the mentally ill. By the end of the fiscal year, 65 of these special projects had been approved and were under way.

TRAINING AND BIOMETRICS

A review and report of the Institute's training program at the end of its first decade of operation, conducted at the request of Congress, revealed that mental health training has improved both in quantity and quality during this period and that the program is accomplishing its objectives. One measure of this success is that more than 70 percent of former trainees and research fellows are now doing mental health work in public agencies or as researchers or teachers.

In line with the Institute's forecast that the immediate future need is for increased research training, two new types of doctoral-level training awards were developed for initiation as of July 1, 1958. One is for training research personnel in several areas of psychology. The other is to provide training of psychologists for research and service roles in mental health areas of acute personnel shortage, such as mental retardation, delinquency, geriatrics, and alcoholism.

The collection and analysis of mental health data continue to broaden understanding of the epidemiology of mental diseases. During the year the cooperative program undertaken with the States for collecting statistical data on mental hospital patients was strengthened. Two more States, Connecticut and Kentucky, joined the model reporting area, bringing the total to 20 States.

Institute of Neurological Diseases and Blindness

Neurological and sensory disorders, as a group, are the main cause of permanent crippling in the United States. These disorders are the result of damage to the brain, spinal cord, and peripheral nerves, and thus affect the entire body. Collaborative efforts of many scientists have provided fresh leads to a number of these serious health problems.

Although there is no known cure for multiple sclerosis, Institute scientists made a discovery this past year which may hasten its conquest. Myelin is the fatty sheath insulating the nerve fiber tracts of the brain and spinal cord. In multiple sclerosis and related disorders, myelin deteriorates—demyelination—and fails to regenerate. An essential compound in the fats of myelin is sphingosine. Institute scientists have discovered the specific manner in which sphingosine is formed in the body, and have synthesized it in the laboratory. This new understanding of sphingosine may lead to additional knowledge

concerning the disappearance of myelin and the possible reversal of the process.

Structural regeneration of central nervous tissue in animals is now known to be possible. The regeneration has been aided by cellulose acetate plastic shields, which prevent the growth of scar tissue and permit a free exchange of nutrient materials. To date, however, there has been no significant functional restoration.

Various recent basic research studies have developed new information concerning the cellular structure of the brain. It has been thought that the function of neuroglia, which make up 80 to 90 percent of the cells of the central nervous system, is primarily to support nerve cells and fibers and to repair damage following injury. Recent studies of neuroglia in tissue culture and under the electron microscope reveal that they play more than a supporting role. They may act as a filter or manufacturer of the fluids which nourish the nerve cells of the brain. Electrical activity of neuroglia has been recorded. They have been found to have synaptic relations with nerve cells and may respond to nerve impulses. Research also indicates that they play an important role in the formation and maintenance of myelin.

Among the most difficult blinding diseases to diagnose are those in the general category of retinal disorders. Through electroretinographic research techniques, Institute scientists developed new leads of diagnostic value which may help elucidate retinal mechanisms.

Neuromuscular diseases, including muscular dystrophy and myasthenia gravis, have presented many perplexing problems for medical research. Widely acclaimed both in this country and abroad is the *Atlas of Muscle Pathology in Neuromuscular Diseases*, prepared by Institute scientists. It is an aid to the diagnosis of these diseases and to basic investigation.

GRANT-SUPPORTED RESEARCH

Significant among the research accomplishments of grantees during 1958 is the collaborative investigation of brain damage during pregnancy and early childhood, the completion of a classification of cerebrovascular diseases, and the coordination of international advances in the understanding of allergic encephalomyelitis and its possible relation to demyelinating disorders.

Fifteen universities and hospitals are now collaborating with NINDB in an extensive investigation of adverse factors causing brain damage during pregnancy, at the time of birth, and in the early years of childhood. The groundwork has been laid for the study of 40,000 mothers and babies over a 5-year period, in order to increase the understanding of the nature and causes of cerebral palsy, mental retardation, epilepsy, and related neurological disorders.

For the first time, all known types of brain strokes have been defined and classified by a committee of leading neurologists and internists, appointed by NINDB's Advisory Committee. The completion of this 2-year study provides a common language for the exchange of information among researchers throughout the Nation and offers a useful tool to practicing physicians.

A large mass of data on "allergic" encephalomyelitis has been developed in recent years in the United States as well as in many other countries. In an attempt to assemble this material in a uniform manner and to evaluate new developments, a symposium of scientists from the United States, Canada, England, Germany, France, Italy, and Japan was sponsored by NINDB's Advisory Council in the fall of 1957. Further work is necessary to determine the extent to which allergy is a factor in diseases of the nervous system. Among other efforts are studies to determine the sites of the earliest neurological damage in such conditions.

Bureau of Medical Services

The Bureau of Medical Services is responsible for the programs of the Public Health Service related to care and protection of the individual. It operates hospitals and outpatient clinics; the foreign quarantine activities; the health program for American Indians and Alaska Natives; aids in construction of community hospitals and health facilities and in the development of the Nation's dental and nursing resources.

Research is carried on in hospital design and management, epidemiology and treatment of tuberculosis and other infectious diseases common among American Indians and Alaska Natives, control of yellow fever and the mosquitoes that transmit it, measurement of dental malocclusion, and many phases of nursing practice. National, regional, and State studies are made of present and future supply and demand for dentists and nurses. The PHS hospitals conduct clinical investigations in the treatment of leprosy and of narcotic addiction, as well as in many aspects of modern medical practice. They are among the Nation's primary resources for the training of physicians, nurses and other health personnel.

Hospitals and Outpatient Facilities

The Division of Hospitals operates the medical care program for legal beneficiaries of the Public Health Service. Besides American seamen, these patients include officers and enlisted men of the Coast Guard, officers and crew members of the Coast and Geodetic Survey, commissioned officers of the Public Health Service, civil service em-

ployees of the Federal Government injured in performing their work, active duty and retired members of the Uniformed Services and their dependents, and several other groups.

In 1958, the Division maintained 16 hospitals, 26 outpatient clinics and 99 outpatient offices. Twelve of the hospitals provide general medical and surgical services, one is exclusively for patients with tuberculosis, two are for the treatment of narcotic addiction and other neuropsychiatric disorders and one provides care for persons with leprosy. The general hospitals are in major port cities—Boston, New York, Baltimore, New Orleans, Chicago, Detroit, San Francisco, and Seattle. In certain other places, depending upon the concentration of beneficiaries, outpatient clinics and outpatient offices have been established. Staffed by full-time personnel, the former provide comprehensive medical, dental and allied health services. Local physicians conduct the outpatient offices in their private facilities on a part-time basis as needed.

VOLUME OF SERVICES

Inpatient admissions in all of the Public Health Service hospitals during 1958 totaled 49,501—about the same as the previous year. The average daily census at 5,295 was decreased 1 percent. The number of outpatient visits increased to 1,098,278—nearly 7½ percent.

General hospitals.—The general hospitals admitted 44,410 patients in 1958 as compared with 44,584 in 1957. The average daily patient load remained substantially the same at 2,756. Days per admission at the general hospitals in 1958 averaged 22.7, as compared with 22.6 in 1957.

Tuberculosis.—The Division's tuberculosis hospital, the U. S. Public Health Service Hospital, Manhattan Beach, Brooklyn, New York, admitted 377 patients in 1958, a decrease of 11 percent. The average daily census dropped 8 percent, reflecting the current nationwide trend in pulmonary tuberculosis management.

All the accepted newer drugs in the treatment of pulmonary tuberculosis are used at the hospital, and the staff keeps abreast of the status of experimental drugs and of therapeutic and surgical procedures for diseases of the chest. The hospital maintains a modern pulmonary function laboratory for cardiopulmonary function studies and receives laboratory and consultant services from an outstanding community hospital.

Leprosy.—The U. S. Public Health Service Hospital at Carville is the only hospital in the continental United States devoted exclusively to the treatment and rehabilitation of patients with leprosy. It is located on the eastern shore of the Mississippi—75 miles north of New Orleans.

Anyone in the United States may be admitted as a patient in this hospital after the diagnosis of leprosy has been confirmed and he has signed a statement of willingness to be treated there. Services include complete medical, surgical and dental care as well as the specialized treatment to combat leprosy. Outstanding specialists from medical centers in New Orleans, notably those of Tulane University and the University of Louisiana augment the resident staff. Besides its clinical services, the hospital offers a range of community activities with manifold opportunities to participate in religious, recreational and occupational endeavors.

The sulfone drugs were first introduced at Carville in 1941. Most leprosy patients treated with these drugs experience improved general health. In many cases, disabling damage can be avoided if treatment is started when the disease is in its early stages.

Admissions at Carville totaled 73 in 1958, compared with 61 the year before, while the average daily census decreased from 315 to 296.

Narcotic addiction.—The U.S. Public Health Service hospitals at Lexington, Ky. and Fort Worth, Tex. are operated for the treatment of narcotic addicts as defined by Federal law. Mentally ill patients entitled to care as beneficiaries of the Federal Government are also admitted.

In 1958, these hospitals admitted 4,641 patients, a 1 percent increase over 1957. Addict admissions were up 3 percent; prisoner and probationer patients each by 5 percent; voluntary patients by 2 percent. The average daily census of addict patients declined 2 percent from 1,390 in 1957 to 1,367 in 1958. Voluntary patients account for the major portion—87 percent—of the admissions, but for less than half—42 percent—of the average daily census, reflecting the addicts' weakened self control toward narcotics.

MEDICARE

The Dependents Medical Care Act, which became effective December 7, 1956, authorized the Division's hospitals and clinics to admit active duty and retired members of Federal uniformed services and their dependents and the dependents of deceased members of these services. Known as Medicare, this program resulted in increased utilization of Service facilities during the year. For example, admissions of uniformed service personnel and dependents in June 1958 totaled 1,126, a 12½ percent increase over June 1957; the number of outpatient visits in June 1958—29,097—was 18.9 percent greater. The June 1958 average daily census of 214 Department of Defense beneficiaries in PHS hospitals was 128 more than the PHS beneficiary load of 86 in Army, Navy, and Air Force hospitals.

TRAINING

More than 275 physicians, dentists, pharmacists and dietitians served internships and residencies at PHS hospitals. Ten of the hospitals had approval for the post-graduate training of physicians granted by the American Medical Association, Council on Medical Education and Hospitals. Eight hospitals were approved by the American Dental Association for dental internships. Dental residency training programs in oral surgery and prosthodontia were being conducted at the Service hospitals at Staten Island and Seattle, respectively.

Affiliations with colleges and technical schools afforded practical experience and hospital instruction to approximately 100 undergraduates in physical therapy, occupational therapy, vocational therapy, social service and medical technology. The hospital in Baltimore, Md, conducted an approved course for medical record librarians and the hospital at Staten Island, N.Y., provided the clinical nursing portion of the hospital corpsmen course given by the Coast Guard.

Between 1947 and 1958, a total of 394 physicians completed approved residencies in Division of Hospitals facilities. Throughout the history of the Service training and clinical experience gained in these hospitals have contributed importantly to many distinguished careers in health fields separate from direct care of patients.

CLINICAL INVESTIGATIONS

The hospital in New Orleans, in cooperation with Tulane University, is conducting tests with various chemicals in the treatment of cancer by a closed perfusion method. The hospitals at Staten Island and Baltimore are conducting studies in cardiopulmonary hemodynamics. At the San Francisco hospital, research studies are being made on liver function and on the anatomy of the male breast.

These are a few of the 39 research projects supported by the Division of Hospitals during the past year in 8 hospitals.

At the hospital for leprosy, Carville, Louisiana, the Second Conference on Progress and Potentials in Leprosy Investigations was held in March 1958. More than 75 physicians and scientists were present to discuss furthering research in this disease. Basic research disciplines represented included anatomy, nutrition, bacteriology, pharmacology, virology and epidemiology.

FEDERAL EMPLOYEE HEALTH SERVICES

The Public Health Service helps Federal agencies to establish and maintain health services for Federal employees. Twenty-five health units in various Federal agencies are staffed and supervised by the Federal Employee Health Branch of the Division of Hospitals on a reimbursable contract basis. In fiscal year 1958, health services were

provided for about 46,500 Federal employees in the Washington, D.C., Denver, New York, and Boston areas through these units.

The Department of Health, Education, and Welfare and several other Federal agencies last year inaugurated, through these units, health maintenance programs for key personnel. The programs include physical examinations and complete medical history, plus all necessary routine laboratory procedures.

FREEDMEN'S HOSPITAL

There was a record total of 3,227 births, without a single maternal death, during the fiscal year 1958 at Freedmen's Hospital. There were 14,083 inpatients admitted, an increase over the 13,715 reported for 1957. The daily average census remained unchanged at 361.

Freedmen's Hospital is a general medical and surgical hospital with facilities for treating chronic chest diseases. It also provides clinical instruction and experience for students of Howard University, College of Medicine, and conducts approved teaching programs in nursing, dietetics, medical technology, pharmacy, social service, and hospital administration. The Hospital has a capacity of 320 general medical and surgical beds, 50 bassinets and 150 beds in a separate annex for chronic chest diseases. Due to budget restrictions only 52 of the latter beds were in use at the year end.

The outpatient service, consisting of 34 organized clinics and the emergency room, received 95,213 visits, compared with 91,022 in 1957.

Approximately 38 clinical research projects were under study during the year, notably a series on various aspects of sickle cell anemia.

Graduate medical and dental training was provided for 47 medical residents, 13 medical interns, 9 medical externs, 2 dental interns, and 8 clinical research fellows. The hospital serves also as a training facility for junior and senior medical students. The School of Nursing had an enrollment of 114 students, 56 in the graduating class. Ten dietitians completed the internship offered by the hospital and approved by the American Dietetic Association.

The Hospital continued its cooperation with the teaching program leading to a master's degree in hospital administration, offering a 1-year residency in this specialty. Conducted on a preceptorship basis, this program meets standards acceptable to the American Hospital Association, the American College of Hospital Administrators, and the Association of University Programs in Hospital Administration.

Two pharmacy graduates successfully completed internships during the year and one student from Howard University School of Social Work was accepted for field work training in medical social work.

Foreign Quarantine

No quarantinable diseases were introduced into the United States through international traffic this year. Yet, the tremendous increase in such traffic has created health threats to this country. In today's world, time and distance, which formerly served as a protective barrier for the United States, have been greatly compressed. Thus, protecting the Nation against the importation of diseases remains a major responsibility of the Public Health Service.

Smallpox and yellow fever continued to occur along routes of international traffic to such an extent as to constitute serious threats to this country throughout the year. The requirement of smallpox vaccination for persons coming from abroad, citizens and aliens alike, is a major measure in protection of the United States against this disease of worldwide prevalence. For the fifth consecutive year the Nation was free from smallpox.

The northward march of yellow fever through the jungles to the northern border of Guatemala necessitated further strengthening of measures to protect this country against the disease. The entomology program of the Division of Foreign Quarantine was developed further to carry on more intensive yellow fever mosquito survey and control activities in airports and dock areas in the yellow fever receptive area of the United States around the Gulf of Mexico. The yellow fever mosquito, *Aedes aegypti*, was detected in a number of areas, from Florida to Texas.

Plague, typhus, and louse-borne relapsing fever occurred only in localized areas of the world where they are traditionally endemic. Cholera occurred in rather explosive epidemics in the Orient, but did not invade Western Europe, the Pacific Ocean area, or the Americas.

INTERNATIONAL TRAFFIC VOLUME

Airplanes inspected for quarantine or immigration-medical purposes again showed a significant increase, from 61,892 in 1957 to 68,703 this year. The number of ships inspected remained nearly the same, 34,120 this year compared with 34,779 last year. Arriving persons subject to foreign quarantine regulations from overseas and interior Mexico increased from 5,061,621 to 5,217,627. Smallpox vaccinations by quarantine officers decreased from 541,891 to 418,292. The number of persons released subject to further medical examination at destination increased from 23,173 to 58,083; persons detained in isolation at ports increased from 37 to 124.

Pursuant to Public Law 85-58 of June 21, 1957, a total of 8,305 ship quarantine inspections were provided on overtime. To avoid costly delays to international commerce this law provides for inspections to be made outside regular hours, with expenses paid in most

cases by transportation companies requesting the special service. Aircraft inspections on overtime numbered 5,140.

MEDICAL EXAMINATIONS

General program.—The number of aliens examined abroad by Public Health Service officers decreased from 206,754 in 1957 to 190,526 this year; most of these were prospective immigrants. Those examined in this country increased from 2,598,741 to 2,870,292; these were chiefly crew members of ships and planes and temporary visitors. (Figures for this year include 3,474 refugees abroad and 4,835 in this country. In 1957 refugees came under special programs, and are not included here.) Among the persons examined abroad and in the United States, 5,403 were found to have diseases excludable under the immigration law. The categories were as follows: mental diseases and defects 302 cases abroad, 161 in this country; tuberculosis 2,977 abroad, 1,515 in this country (see following section); dangerous contagious diseases 108 abroad, 340 in this country; other physical conditions that may have caused exclusion or required the posting of a bond 16,725 abroad, 16,941 in this country.

Immigration of certain aliens with tuberculosis.—Under a provision of Public Law 85-316 effective till June 30, 1959, the exclusion provisions of the Immigration and Nationality Act are modified to permit an immediate family member of an American citizen or of a resident alien to immigrate to this country although afflicted with tuberculosis. The public health is protected through immigration regulations, prepared on the advice of the Division in consultation with the Tuberculosis Program, requiring these aliens to go promptly to a hospital for examination. The New York Quarantine Station checks on compliance and receives a medical evaluation, necessary X-ray films, and a report of final disposal of each case. A specified health officer or physician of a recognized tuberculosis hospital is responsible for supplying necessary care, in conformity with accepted local standards of medical practice.

During the year 576 aliens with confirmed or suspected tuberculosis were examined abroad by the Division of Foreign Quarantine under these provisions, and 455 at United States ports. (Aliens certified under these provisions are included in figures for "excludable" diseases in preceding section.)

Farm placement.—In the seventh year of the farm placement program of recruiting agricultural workers from Mexico, 406,353 laborers were examined, with 11,634 rejections, at 3 migratory centers in Mexico; 424,477 examinations were made, with 4,886 rejections, at 5 reception centers in California, Arizona, and Texas.

Plans were completed to conduct routine serologic testing for syphilis at the reception centers. This was made feasible by a new

rapid plasma reagin test developed by the Communicable Disease Center, that permits a report of results within minutes. Trial of this test at the El Centro, California, reception center indicated that its general application to Mexican laborers would reveal a significant amount of syphilis which would be missed by physical inspection.

OTHER QUARANTINE ACTIVITIES

Foreign Quarantine Regulations were amended to strengthen and modernize provisions on yellow fever prevention, control of insects on ships and aircraft, and importation of dogs, cats, and monkeys. The changes recognize yellow fever provisions in amendments to International Sanitary Regulations issued by the World Health Organization and the longer effective periods of recently developed rabies vaccines for dogs.

Entomological investigations on the Mexican border, in connection with medical examination of imported farm laborers, revealed further and conclusive evidence of resistance of body lice to certain insecticides. Plans were made to study this important resistance problem in more detail to determine its actual nature and extent and to search for more effective control measures.

A revision of "Sanitary Measures for Travel of Aliens with Tuberculosis" was published, chiefly to simplify and improve procedures for preventing the spread of infection. The measures apply to travel of aliens admitted to the United States as immigrants under special legislation or as nonimmigrants for treatment. Changes included clear-cut classification of cases as communicable or noncommunicable and provisions to help airlines avoid accepting passengers with tuberculosis in communicable form.

Health Services for Indians

More health services than ever before were made available during 1958 to the Indians and Alaska Natives through the Federal Government's Indian health program. A new record was established in the numbers of persons served despite the fact that costs were held essentially to the 1957 level of expenditure during the third year of the program's operation by the Public Health Service.

Hospital admissions increased for the third successive year to a total of 71,000, including 15,000 in contract facilities. This increase occurred in spite of a dramatic reduction in tuberculosis morbidity and in spite of the fact that fewer tuberculosis patients required bed care in hospitals. The greater number of hospital admissions is attributable to increased care provided general patients. It also reflects a growing demand by beneficiaries for more medical services.

This heavy hospital load points up the need for intensive efforts to reduce the increasing need for hospital care at the source by effective

disease prevention. The excessive tolls which preventable diseases still take in human life among Indians and Alaska Natives make it clear that prevention is the key to the greatest improvements attainable in their levels of health.

Prevention of disease and health promotion received greater emphasis during 1958. In extending preventive activities on reservations and in Indian communities, the field sanitation personnel alone made nearly 40,000 visits to Indian homes and institutions. Public health nurses intensified their efforts in Indian homes and communities.

The Public Health Service operates 55 hospitals and provides services at more than 270 non-Federal hospitals on a reimbursable basis or through contracts. Preventive health services as well as therapeutic care for ambulatory patients are provided by the Public Health Service at health centers, dispensaries in Indian boarding schools, field health stations, hospital outpatient clinics, and other locations totaling about 300. Approximately 160 private physicians and dentists, and 30 agencies of State health departments also provide services to Indians and Alaska Natives under contractual arrangements with the Public Health Service.

The beneficiaries of the Indian health program number about 347,500 Indians (excluding those in Alaska) and about 37,500 Alaska Natives (including Indians, Aleuts, and Eskimos), or a total of 385,000. Most of the Indians live in 24 States, and are scattered over about 250 reservations. These populations depend primarily upon the Public Health Service not only for the preventive services commonly provided by local health departments but also for a full range of medical, nursing, and dental care.

The health problems of the Indians and Alaska Natives and the difficulties in reaching them with health services are unique. Nearly a fifth of all deaths among these groups result from infectious diseases which long have been under control in the general population. Their deaths from such preventable diseases as tuberculosis, gastroenteritis, influenza, and pneumonia are 3 to 6 times higher than in the population as a whole. Life expectancy among Indians and Alaska Natives is 10 years shorter than the 70-year life span which prevails generally.

Whereas the average age at time of death in the general population is 62, among the Indians it is only 40. This early average age at death results largely from the excessive infant death rate among Indians. Twenty-two percent of all Indian deaths occur among infants, compared with a national average of only 7 percent.

THERAPEUTIC SERVICES

The 71,000 hospital admissions in 1958 represent an increase of 6 percent over last year. Reflecting successes in combating tuberculosis, the average daily census in Indian hospitals (not including contract

facilities) decreased slightly to 2,600. The census of general patients increased by 2.4 percent during the year. Visits for treatment and preventive services provided by hospital clinic staffs totaled nearly 575,000.

Reflecting improvements in the operation of Indian hospitals, one additional hospital was accredited, bringing the total to 12 out of 55 now in operation. One small hospital at Cloquet, Minn., was closed and its services replaced by a modern community hospital which has a contract with the Public Health Service.

Pharmacies were established in four additional hospitals. This expansion provides services for an additional 164 hospital patients and 38,000 outpatients. There now are 20 hospitals in the program which have pharmacies. Smaller facilities are provided with pharmacy services from central pharmacies. Prescriptions filled during the year totaled 255,000 for 249,000 outpatients.

Both qualitative and quantitative improvements were made in treatment services rendered outside hospitals. Eleven Public Health Service physicians were added to provide such treatment, bringing the number serving at field health installations to 54 out of a total of 230. Use of contract physicians and dentists was increased, permitting more beneficiaries to receive services nearer to their homes. Total expenditures for contract care, both in hospitals and by private practitioners outside hospitals, amounted to \$7,679,000.

PREVENTIVE HEALTH SERVICES

Qualitative improvement in public health nursing and health education services was achieved by means of increased staff training and professional development through institutes, scholarships, and accelerated training on the job. An audiovisual service was established in the field to develop health education materials for specific tribal groups. For the first time, it was possible to provide limited psychiatric services for disturbed school children.

In response to the need to improve nutritional health among Indians, organized nutrition services were expanded to 2 of the program's 7 geographic areas. Nutrition and dietetic services, still new to the Indian health program, now are available to 7.3 percent of the beneficiaries.

A prime factor in the excessive incidence of enteric and other infectious diseases among Indians and Alaska Natives is the gross insanitary environment prevailing on reservations and in communities where the beneficiaries live. Use of polluted water hauled from remote sources, contamination of food, insect and rodent infestations, and dangerously overcrowded and inadequate housing are common among these peoples. Environmental sanitation activities of the Indian health program are designed to correct these conditions and practices.

The addition of 19 sanitarian aides, most of whom are Indians trained by the Service to work under the direction of sanitary engineers, permitted some expansion of sanitation services during the year.

Sanitation surveys were completed for 4,000 water sources, nearly 20,000 waste disposal facilities, 192 Indian schools, and various other facilities. Technical assistance provided for the beneficiaries made it possible for them to improve or build at their own expense hundreds of safe water sources, nearly 1,000 sanitary privies, and nearly 3,000 refuse disposal facilities. However, the sanitary deficiencies on reservations and in native communities in Alaska are far too great to be overcome by the beneficiaries with their own limited resources.

Under the terms of Public Law 85-137, enacted in August 1957, the Public Health Service built sewer and water facilities to serve the Indian colony at Elko, Nev. This project, carried out in cooperation with the Indians concerned and the city of Elko, was completed in February 1958 and turned over to the city government for continued operation and maintenance.

TUBERCULOSIS CONTROL

Between July 1955 and the end of the 1958 fiscal year, new tuberculosis cases dropped 25 percent. The tuberculosis death rate among beneficiaries outside Alaska also declined 25 percent. Among Alaska Natives, the tuberculosis death rate dropped 57 percent. In spite of these spectacular gains in a relatively short space of time, the tuberculosis death rate among Indians outside Alaska is still 4.4 times greater than the rate of 8.4 deaths per 100,000 annually among the Nation's population as a whole. Among Alaska Natives, the tuberculosis death rate is more than 10 times this national average.

In contrast with the situation 3 years ago, when there was a waiting list of tuberculosis patients who could not receive needed hospital care because of limitations in the Indian health program, there now is actually a small surplus of beds for such patients. Some hospital beds formerly required for tuberculosis patients now are being converted for general patients. It also has been possible to terminate some contracts with non-Federal sanatoria because of the elimination of the backlog of cases in need of hospital care and the reduction in the incidence of the disease in beneficiary populations.

Continued progress in controlling tuberculosis will depend largely upon the adequacy of case finding, epidemiological investigations, and supervision of the increasing number of ambulatory patients receiving outpatient treatment with modern drugs. To facilitate case finding and followup of patients, an improved tuberculosis record system was extended to several additional field health installations.

ORAL HEALTH SERVICES

Clinical observations of oral health conditions among Indians and Alaska Natives indicate that the vast majority is in need of dental care. Defects ranged from rampant tooth decay to gross periodontal disease. The 73,000 patients examined during the year required nearly 270,000 restorations, 114,000 extractions, and 24,000 prosthetic appliances.

Visits to Indian health dental clinics increased by 18,500 and individual treatments increased by 33,000 over 1957. Contract dental care services were begun during the year to reach beneficiaries who had received little or no dental services in the past. Despite these gains, less than one-fifth of the beneficiary population received dental care during the year, and even the patients who were treated required 307,000 more individual treatments than could be provided. Because of the inability to provide dental care for all who need it, services are available primarily to school children.

SERVICES TO MOTHERS AND CHILDREN

Services to mothers and children, including prenatal care and well-baby supervision, were increased substantially. Nearly 18,000 prenatal examinations were given in 1958, compared with 13,000 in 1957. At the 16 school health centers outside of Alaska, visits to physicians increased 31 percent and visits to nurses increased 7 percent.

During 1957, examinations in the field disclosed that trachoma, a virulent eye disease, was recurring among Indians in the Northwest and the Southwest. Inasmuch as this disease is relatively rare in the general population, very little in the way of professional literature was available for guidance of physicians who must diagnose and treat the condition among Indians. Accordingly, the Public Health Service commissioned its consultant in ophthalmology, a leading authority on trachoma, to write a medical text to meet this urgent need—the *Trachoma Manual* and *Atlas*. This text has also been made available for use in other parts of the world where trachoma is a serious health problem. Trachoma among Indians is being brought under control.

The excessively high death rate among Indian children remains one of the most serious problems facing the Service's Division of Indian Health. Of every 1,000 Indian infants born alive in 1956—the latest year for which figures are available—56 died within the first year. In the general population, only 26 out of each 1,000 infants born alive fail to survive beyond the first year.

Encouraging progress is being made in reducing the Indian infant death rate. This death rate has dropped 15 percent since the Public Health Service assumed its present responsibilities for Indian health.

TRAINING OF INDIANS

Approximately 100 Indians and Alaska Natives received training in health occupations during 1958 through the Division of Indian Health. Slightly more than half of these are practical nurses who were trained in the two accredited schools which the Service operates to provide practical nurses in its Indian hospitals.

Others who received training to qualify them for employment in the Indian health program included sanitarian aides and dental assistants. In-service training also is provided for personnel in each of these categories, and for community workers (health) who are trained on the job under contract by faculties from the Schools of Public Health of the Universities of California and North Carolina. More than half of the employees of the Division of Indian Health are of Indian descent.

CONSTRUCTION

The Congress has authorized construction of 4 new hospitals, 15 field health facilities, and more than 70 new staff quarters. The new hospital at Shiprock, N. Mex., now is under construction, and those at Gallup, N. Mex., and Kotzebue, Alaska, will be under way in fiscal year 1959. Planning for the new hospital at Sells, Ariz., will be completed in 1959.

All 15 of the new field health facilities are under construction, and 48 of the new housing units have been started. Five old hospitals are to be remodeled, and extensive repairs are being carried out on a number of other hospitals and health facilities.

Procedures for participation by the Public Health Service in the construction of community hospitals to be used jointly by Indian beneficiaries and non-Indians were developed and approved. Such projects are to be carried out under the terms of Public Law 85-151, approved in August 1957.

Health Facilities Construction Program

Since the beginning of the hospital construction program in 1948, substantial gains have been made in meeting the need for general hospitals, and some gain in facilities for mental and chronic disease care. During the past decade new construction has been offset materially by increases in population, by obsolescence, and by the abandonment of old facilities as new facilities are constructed.

Amendments to the original legislation have expanded the program until now nearly all types of facilities are eligible for aid, except offices of physicians and dentists. A program of research is helping to develop the most effective use of hospital facilities, services and resources.

CHANGING NEEDS AND EMPHASIS

Seventy-five percent of the need for general hospitals has now been met, according to inventories and statewide programs furnished by the States, as compared with 59 percent in 1948. Mental hospitals have fewer beds today in proportion to requirements than was reported in 1948—53 percent as compared with 55 percent. Tuberculosis facilities are decreasing in number and capacity because of declining incidence of new cases. The Nation now has 70 percent of its total tuberculosis hospital need. Chronic care hospitals now provide only 14 percent of the beds needed for such care.

The State plans on record January 1, 1958, show a remaining need of 888,000 additional beds for all types of hospitals. Besides this, 323,000 additional nursing home beds are needed for skilled nursing care, or three-fourths of the total requirements in this field.

In 1958 the record shows a continued trend toward providing facilities for long-term care, within the program of federally aided construction. This trend is evident in national totals, but it is most pronounced in the States which now have the largest proportion of need met for general hospitals. The top 13 States in this respect (first quartile) in 1958 assigned to general hospitals 44 percent of the new hospital bed program which received Federal aid and assigned 39 percent to chronic care hospitals and nursing homes. These States each have more than 80 percent of general hospital needs available.

RESEARCH IN HOSPITAL MANAGEMENT

Hospital research is also receiving added attention through increasing requests for grants available to universities, hospitals, and State and local governments. Direct intramural research is also conducted under this program. The statutory ceiling on research funds is \$1,200,000 annually.

As an example of intramural research, the better organization of hospital services around the medical and nursing needs of the patient was studied intensively by the Public Health Service in 1958. A pattern of services is being evolved which is known as "progressive patient care." This pattern makes possible a high level of service, with the best use of medical and nursing personnel and a type of facility most suited to the patient's need. It includes intensive care for critically ill patients, intermediate care for those requiring moderate amount of service, self care in a hotel type of setting for ambulatory patients, and long-term care in a homelike atmosphere with a periodic evaluation of patient progress and with rehabilitation. These types of hospital care are supplemented by home care under medical direction, with opportunity for preventive services. Specific studies in this field are in progress at the Manchester Memorial Hospital, Manchester, Conn.

SCALE OF OPERATIONS

The annual amount of Federal construction grants has varied, since the initial appropriation in 1948, from \$65 million to \$150 million. The 11-year average, 1948-58, is \$96 million annually. The total cost of projects assisted has averaged about three times the Federal contribution.

The current active program on June 30, 1958, includes 1,330 projects in the construction or preliminary planning stages. These projects will provide 53,362 beds for inpatient care and 418 health units for outpatient care. Such units include public health centers, State health laboratories, diagnostic and treatment centers and rehabilitation facilities. The estimated cost of this active program is \$1,323 million. This level of activity is higher than in any previous year. Likewise, the national volume of all new construction started, for health facilities, is rising and has nearly reached the postwar peak attained in 1951. The volume of all work placed in the fiscal year 1958 amounts to \$921 million, a 25-percent increase over 1957. The volume of federally aided work placed in 1958 is \$320 million, as compared with \$170 million in 1957.

LEGISLATION

New legislation enacted in 1958 includes an amendment to Title VI of the Public Health Service Act, making available loans for hospital construction, in lieu of grants, from the funds appropriated for grants. Also, the statutory term of the Federal program for hospital construction aid was extended for a period of 5 years after the fiscal year 1959, by a measure signed by the President August 14, 1958.

Dental Resources

Activities of the Division of Dental Resources are directed toward the goal of more and better dental care for a larger, more health-conscious population, in the face of an increasingly serious shortage of dentists. The Division has pioneered studies in long-range manpower requirements, educational experiments to help in training dentists to work with chairside assistants, and analyses of prepaid dental-care plans and their effect on demands for service.

The Division also conducts technical research in malocclusion. An epidemiological measure of this condition developed by the Division was tested successfully in five field studies. The purpose is to devise a reliable method of assessing prevalence and incidence of malocclusion, so that preventive programs can be developed.

SERIOUS MANPOWER SHORTAGE

Because of inadequate dental school facilities, the Nation is not graduating enough dentists to pace population growth. This, plus

increased demands for service, is producing a critical manpower shortage. To determine how many more schools are needed, and where, the Division added a survey of New England to its series of regional manpower studies and began another for the Great Lakes States. The New England survey, prepared at the request of the New England Board of Higher Education, indicated that the most serious shortages in the region are developing in Connecticut and Massachusetts. Previous studies of the Southern and Western States, where shortages also exist, are being used as guides in expansion of training facilities.

Other Division activities were designed to insure effective utilization of available manpower. Although chairside assistants enable a dentist to treat more patients, they are not universally employed because most dentists were not taught to use them. In a project begun in 1957, six dental schools are cooperating with the Division in developing ways of training undergraduates to work effectively with assistants; definite improvement has been shown both in quality and quantity of work of students using assistants. Other findings are expected to affect length and type of schooling given chairside assistants, timing of clinical and research training in dental schools, and contemplated modernization of undergraduate curriculum.

STUDIES OF PREPAYMENT PLANS

One of the most potentially important developments in dentistry is the current growth in number and size of prepaid dental care plans. Cost is generally considered the greatest single deterrent to purchase of dental care. Prepaid plans, which provide services at a planned expense to the member, may therefore make comprehensive care possible for millions who have never had it.

The Division conducted research in all phases of dental prepayment. Two reports, one of a study of the organization and operation of the nonprofit Washington State Dental Service Corporation and the other a digest of all known prepaid dental-care plans in the United States, were published. A third, a glossary of terms used in prepayment literature, was begun. Other studies undertaken were an analysis of patient utilization of the Nevada State Dental Society's postpayment plan (in which dental care is financed through short-term loans) and a description of the operation of a dental care plan for public assistance beneficiaries in the State of Washington.

Nearing completion were two studies that will show the variations in utilization patterns among different population groups. The first is a study of treatment sought by a group of persons of relatively low income served by the St. Louis Labor Health Institute. The second covers the use of clinic services by Public Health Service and Coast Guard beneficiaries.

Nursing Resources

In Autumn, 1957, a group of nurse educators met at the University of Colorado to discuss how to interest graduate nursing students in nursing research. Early in 1958, nurse leaders and social scientists met at the University of California to find ways of directing more nursing research toward patient care, ways to improve family health. Later in the year, in Seattle, the Western Institutions for Higher Education in Nursing held a conference for the exchange of information on research projects in nursing. Another conference was planned in mid-summer to evaluate what has been accomplished in nursing research, and what still needs to be done. All of these conferences were sponsored and supported by the Division of Nursing Resources.

The ground is slowly, surely and carefully being prepared for the growth and development of strongly patient-centered studies which may explain some of the mystifying and perplexing anomalies in nursing: Why is there not enough nursing when there are more nurses than ever? What is nursing? Who should nurse the patient? What are we educating nurses to do?

Improving the supply of nursing which reaches patients, through study and application of knowledge, is one of the major responsibilities of the Division of Nursing Resources. This year, most of its efforts were applied to stimulating investigation of basic nursing problems affecting care of patients, conducting an intramural research program, and offering consultation to hospitals, States, and others serving community health needs.

The chief of the Division conducted the first Inter-American Conference (Brazil) on improving nursing resources through studies of supply and demand based on techniques developed by the Division of Nursing Resources for use in the United States.

NURSING AND PATIENT WELFARE

Premature infants have been the object of considerable study, but now for the first time their behavior is being observed in an effort to establish some fundamental facts about the impact of nursing care on patient response to treatment.

At Bellevue Hospital, New York, the Division is observing 100 premature infants to see what differences occur in weight gain, feeding ability, and infant behavior of babies receiving routine care compared to a study group for whom one simple additional nursing procedure has been added—an "artificial" back support.

Infants in a control group, and infants with the supports, are being observed 42 days each. Premature infants, more than all other patients, are free to respond to stimuli without undue influence of remembered experiences. If the infants with the supports differ from

the control group in weight gain, fretfulness, crying, or vomiting, the study may be able to establish a significant relationship between a specific nursing procedure and survival, or rate of growth. In any case, tools to further test such relationships will have been developed. A concurrent result of the study will be a wealth of new information on premature infant behavior for nurses, pediatricians, and psychologists.

DO NURSES "KNOW" THEIR PATIENTS?

The kind of care a nurse provides may be influenced by her capacity to know and to understand her patients—and, from this understanding, to perceive their emotional as well as physiological needs. Although empathy may not be a hard and fast requirement in nursing care, recognition of needs unquestionably is.

For the past 2 years, the Division has been investigating student-nurse perception ability in 9 hospitals and 7 schools of nursing. Almost 400 students were interviewed to find out whether their own views differed from those of the patients.

Preliminary findings indicate that (1) students believe that they do not have adequate chance to know patients; (2) students often misjudge the importance of certain items which are important to patients; (3) students may "know best" the patients who present the fewest nursing problems; (4) patients are well aware that the nurse is "busy;" they also have had impressed on them, they say, that their needs "are not to interfere with the nurses' schedules and hospital routines."

While these findings are by no means conclusive, they suggest that the completed study may explain why many patients believe there are too few nurses. Quite possibly the results may also suggest that nursing education could profit by some changes in the curriculum of the undergraduate program. These changes would be in the direction of helping faculties to recognize that nursing service practice influences student nurse behavior more than theory.

PROFESSIONAL NURSE TRAINEESHIPS

During fiscal year 1958, \$3 million was awarded to colleges and universities for grants to qualified registered nurses desiring advanced preparation in administration, supervision, and teaching. This program enabled 1130 registered nurses to enroll in 60 degree granting institutions. About half of these nurses had not previously been able to enroll in graduate programs in these specialties; the remainder had been enrolled only part-time or intermittently.

Purpose of the professional nurse traineeship program is to increase the pace at which professional nurses may be prepared for leadership positions in hospitals, community health programs, and in

schools of nursing. Good patient care, it was felt, depends upon not only the judgment and skill of the nurse at the bedside but also upon the assignment of nursing personnel according to the individual requirements of patients of all kinds. The quality of the "product" of the undergraduate nursing schools is determined largely by the preparation of nurse faculties. Similarly, the correct assignment of personnel assumes knowledge of management and personnel practices in relation to the needs of the sick. Advanced preparation in the specialties of administration, supervision, and teaching, therefore, seems to offer the most economical and rapid approach to the improvement of nursing services.

RESEARCH GRANTS AND FELLOWSHIPS

The Division of Nursing Resources also administers a program of research grants and awards in the field of nursing. In 1958, 30 nursing research grants were awarded under an appropriation of \$725,000. Most of the grants were for investigations of nursing care of patients. Also studied were recruiting practices, attrition rates in nursing schools, and screening and selection of students. All projects include nurses as investigators or consultants; more and more are attracting social and behavioral scientists as members of the research team.

The fellowship awards offer nurses the opportunity to prepare themselves for research careers. During the year, 25 full-time fellowships, amounting to \$71,400, were awarded; 47 units (\$30,450) were also made available for part-time study.

Medical Services for Federal Agencies

The medical care programs of the Federal prisons, the Coast Guard, the Maritime Administration, and the Bureau of Employees' Compensation were carried on by Public Health Service officers who are assigned to these agencies on a reimbursable basis.

UNITED STATES COAST GUARD, TREASURY DEPARTMENT

Medical services were provided the Coast Guard's ocean weather stations in the Atlantic and Pacific, the ships going to the Arctic and Antarctic, the Voice of America ship *Courier*, and other cruise vessels as needed.

Both a doctor and a dentist went on the Bering Sea Patrol, often working as long as 16 hours a day. At the 26 Alaskan villages the ship visited, they examined Alaska Natives in family groups at health clinics in the school house. All the children were given eye, nose, throat, and chest examinations. A record number of 56 patients received medical treatment in one single day. During the entire patrol, the medical officer examined 3,741 persons, gave 1,027 X-rays, and treated 816 patients.

The dental officer examined 976 patients and gave 2,856 treatments including 926 extractions, 23 restorations, and 49 X-rays. More than 800 of the patients received anesthesia.

In all, 92 officers of the Public Health Service were on duty with the Coast Guard, including 32 physicians, 46 dentists, and 11 nurses.

MARITIME ADMINISTRATION, DEPARTMENT OF COMMERCE

Medical and dental care for the 720 cadet midshipmen and the 275 faculty and staff members of the U. S. Merchant Marine Academy, Kings Point, N. Y., was provided by the Public Health Service officers assigned to the Maritime Administration.

There were 803 admissions to the academy's Patten Hospital, or an average of 73 for each month of the school year. Outpatient treatments and services, including physical examinations and inoculations of cadets going on sea cruises, totaled 27,822. More than 11,000 dental treatments also were given.

At Washington headquarters, the physician serving as chief medical officer of the Maritime Administration gave professional counsel to the Office of Seamen's Services and the legal insurance department.

BUREAU OF PRISONS, DEPARTMENT OF JUSTICE

The Public Health Service continued to provide medical care to prisoners in the 30 institutions of the Federal prison system. The prison hospitals provided 431,353 hospital days of care, and their staffs performed 974 major and 5,674 minor operations. Outpatient departments gave 785,368 treatments and 30,989 physical examinations. Thirty babies were born and 43 prisoners died.

Medical research was carried on in several institutions. A study of effects of d-lysergic acid was continued at the penitentiary in Atlanta, Ga., under guidance of Emory University staff members, and a project concerned with storage and excretion rates of DDT in human volunteers went into its third year in Atlanta. A survey of incidence of histoplasmosis among prisoner patients at the Medical Center, Springfield, Mo., was made; 39 percent of the patients were negative to histoplasmin. Research at the National Training School for Boys, Washington, D. C. concerning the development of delinquent gangs was completed, in cooperation with the Catholic University.

Prisoners in 22 institutions donated 8,828 pints of blood to Red Cross Blood Banks and to local hospitals.

The medical staff provided psychiatric diagnostic studies of persons charged with criminal offenses about whom questions of mental competency are raised. Because of increasing public interest in determining criminal responsibility of offenders who have mental illness, a comprehensive study was begun by the Medical Section, Bureau of

Prisons, of 500 cases examined in the course of mental competency proceedings under sections 4244 and 4246 of the U. S. Code, Title 18.

BUREAU OF EMPLOYEES' COMPENSATION, DEPARTMENT OF LABOR

Beneficiaries of the Federal Employees' Compensation Act are entitled to medical care, compensation for wage loss, and rehabilitation services for injuries in performance of duty and diseases caused by their employment. Medical officers of the Public Health Service assigned to the Bureau of Employees' Compensation administer the medical care program for their benefit. Medical facilities of the Service and of other Federal establishments are utilized where available; in many areas medical care is provided by private physicians.

During fiscal 1958 there was a slight overall decrease in the total number of work-injury cases reported to the Bureau but a significant increase in cost of compensation and of medical care.

Increased emphasis was given to special study of occupational diseases of obscure etiology and of conditions said to be caused by occupation. The Public Health Service hospital in San Francisco provided facilities for special study of disability due to mustard-gas exposure. The Wright-Patterson Air Force Base Hospital, Dayton, Ohio, provided facilities for study of various occupational diseases, in a new specialty center for occupational medicine.

More emphasis was also given to early vocational rehabilitation of injured employees, through frequent utilization of established rehabilitation centers, cooperation with Public Health Service facilities, and cooperation with State vocational rehabilitation offices.

Bureau of State Services

The Bureau of State Services has primary responsibility for the application of new knowledge to community health programs. The Bureau provides technical, financial, and consultative services to States and communities, and conducts applied research which is designed to improve health and prevent disease. In addition, the Bureau conducts programs which help to strengthen international health activities.

Division of General Health Services

The programs administered by the Division of General Health Services are: the Arctic Health Research Center, the National Office of Vital Statistics, program development, public health education, State grants, and professional training and traineeships.

STATE GRANTS

For fiscal year 1958, a total of \$197,913,000 was available for grants-in-aid to States and Territories to conduct public health programs and to build hospitals and other health facilities. Because no funds were granted for poliomyelitis vaccine (the Poliomyelitis Vaccination Assistance Act expired in fiscal 1957) the total amount is less than the previous year. However, the grants for general health were increased by \$3 million and those for venereal disease control by \$900,000. The amounts of actual payment and the purposes for which they were made are as follows:

| | |
|--|------------------------------|
| General health services----- | \$14, 934, 646. 00 |
| Venereal disease special projects----- | ¹ 1, 675, 964. 37 |
| Tuberculosis control----- | 4, 493, 988. 00 |
| Mental health activities----- | 3, 954, 997. 00 |
| Cancer control----- | 2, 214, 023. 00 |
| Heart disease control----- | 2, 045, 540. 00 |
| Medical facilities survey and planning----- | 124, 408. 85 |
| Construction of community facilities in defense im- pacted areas----- | 13, 352. 00 |
| Hospital and medical facilities construction----- | 105, 291, 966. 43 |
| Waste treatment works construction----- | 16, 884, 274. 88 |
| Water pollution control----- | ² 2, 776, 515. 00 |

¹ Includes supplies and services furnished in lieu of cash.

² Includes \$248,613.00 paid to interstate agencies.

Other funds which were used to help strengthen State and local public health services were \$1,854,000.57 for traineeships for professional public health workers and \$232,140.30 for training and demonstration projects in air pollution control.

ARCTIC HEALTH RESEARCH CENTER

The Arctic Health Research Center cooperates with the Alaska Department of Health to improve public health and medical services in the area. Research at the Center is focused on solving problems associated with life in low temperature areas. One of these projects involves various tests to determine human adaptation to cold. Based on results of previous work with arctic animals, this project is being carried out in collaboration with investigators from the National Science Foundation, the University of Alaska, and foreign countries.

Another Center project this year was a survey of 52 Alaskan villages to determine whether the native population had antibodies against the three types of poliomyelitis virus. It was found that they had and this indicates that, contrary to previous medical opinion, Alaskan natives have had considerable poliomyelitis infection for many years.

Serological tests made during the 1957 influenza pandemic showed that Asian influenza penetrated to the most remote villages.

Sanitation studies continued on experimental water supplies, waste disposal and housing installations. Five experimental housing units

were completed which offer a radical departure from designs and materials used previously.

NATIONAL OFFICE OF VITAL STATISTICS

National vital statistics are derived from reports of births, deaths, fetal deaths, marriages, divorces, and notifiable diseases that are collected by registration officials. Such data provide a current basis for planning programs in public health, medical and demographic research, education, social welfare, business, and government.

An important objective of the National Office of Vital Statistics is to secure complete and accurate registrations and to coordinate the registration and statistical practices of the States insofar as they affect interstate and international comparability of data. A significant milestone was the inauguration in January 1958 of the Divorce Registration Area with 14 States and 3 Territories, following by 1 year the inauguration of the Marriage Registration Area.

The Seventh Revision of the "International Statistical Classification of Diseases, Injuries, and Causes of Death," adopted by the World Health Organization for coding causes of death went into effect on January 1, 1958.

As part of its selected studies series, NOVS issued the following reports: the study and recommendations made by the U. S. National Committee on Vital and Health Statistics on national vital statistics needs; a study on socioeconomic characteristics of recently married persons; an evaluation of obstetric and related data recorded on vital records and hospital records by the District of Columbia Health Department; a study of the relation of live births and neonatal deaths to birth weight; and a report of a special Advisory Committee on Vital Statistics Methods.

PROGRAM DEVELOPMENT

The Program Development Branch explored the need for new public health programs. It continued to serve as a focal point for work on problems of rural health generally, including the health of agricultural migrants. Effort was made to obtain continuity of health services to migrants, as they move from place to place. Methods by which migrant health services are financed were studied, and more accurate information obtained about the migrant population.

TRAINING

Training opportunities continued to increase for potential and current employees in public health. In 1958, a total of 665 professional health personnel was given advanced training under the public health traineeship program of the Health Amendments Act of 1956, compared with 363 last year. More people were also being trained

under State and local health departments sponsorship, and schools of public health experienced a further increase in enrollment.

PUBLIC HEALTH EDUCATION

The Public Health Education Branch worked with State and local agencies to develop health education programs which would lead to desirable health habits.

The Branch provided consultative services in health education techniques and methods to States and communities, to other units of the Public Health Service and the Department, and to voluntary agencies. It also conducted a number of research studies in the behavioral sciences.

Prominent among these was a cooperative study in 5 cities on the effects of the Asian influenza epidemic on community life. Another study, which dealt with children with rheumatic fever, uncovered barriers to effective patient management which existed among patients, parents, physicians, and others. Other research projects were on: psychological factors which may predispose to heart disease; why people use or fail to use available free dental services; and the social and personal consequences of cleft lip and palate in a sample population.

PUBLIC HEALTH NURSING

The development of scientific techniques to determine the needs for nursing staff of public health agencies, based on the policies and programs of the individual agency, was a major accomplishment of the Public Health Nursing Branch during the year.

Studies in work measurement and performance budgeting in public health nursing were conducted in four areas. As a result of these projects, health departments are able to plan more accurately for modifying and expanding services to patients without jeopardy to the ongoing program.

A "Guide for Class Specifications for Nursing Positions in State and Local Public Health Programs" was published and distributed through the Division of Merit Systems. States used the Guide widely in determining qualification requirements of nursing personnel commensurate with their responsibilities.

During the year, the Public Health Nursing Branch assisted various units of the Service in planning and evaluating public health nursing services.

An experimental extension course in public health nursing was established by the Branch in cooperation with the University of Minnesota. It is designed for public health nurses, who are unable to leave their homes or work long enough to take all of the required public health courses on campus.

Division of Special Health Services

The Division of Special Health Services is concerned with the problems of personal health maintenance. Emphasis is placed on chronic illness control and the health of the aged. Division programs are: medical aspects of air pollution and radiological health, accident prevention, occupational health, cancer, and control of tuberculosis, heart disease, and other chronic diseases.

ACCIDENT PREVENTION

The Accident Prevention Program worked to reduce the number of deaths and injuries from accidents—in the home, the school, and on the highway.

Forty-five State health departments now conduct some kind of accident prevention programs. The majority of those are centered on home and farm safety, but there is also a growing interest in motor vehicle safety. This interest has been stimulated by participation in such activities as the Cornell Automobile Crash Injury Studies, and meetings on the medical aspects of motor vehicle operator licensing sponsored by the Program.

There is a total of 124 poison control centers in 40 States. The Public Health Service coordinates this activity through the National Clearinghouse for Poison Control Centers. During the year, local centers were encouraged to provide better emergency treatment facilities, including equipment and antidotes for various poisons. The Clearinghouse obtained information from manufacturers on formulation, toxicity, and recommended treatment in the event of accidental use of their household products.

An important epidemiologic study of fires and explosions, with particular emphasis on petroleum products, began in Mississippi County, Ark., in cooperation with the State health department. An investigator is working with fire department officials and others to identify the causes and circumstances of fires.

The Cornell Aeronautical Laboratory was awarded a contract to study the feasibility of building a driving simulator—a device for studying driver behavior under various conditions.

CANCER CONTROL

During the year, a new unit was established to conduct cancer control activities. The unit works closely with physicians and health agencies to stimulate early detection of cancer.

Informal 2-day discussions were held during the year in Atlanta, New York, and San Francisco to explore possible areas for action. These sessions were attended by representatives of professional medical societies, State health departments, and voluntary health agencies.

Among the recommendations were that health departments initiate the following activities: tumor registries; tumor diagnostic and treatment clinics; casefinding, including cervical cytology; patient followup activities, and lay education.

CHRONIC DISEASE CONTROL

The Chronic Disease Program helps States and communities to prevent the disabling effects of long term illness. In 1958, the Program continued to emphasize the early detection of diabetes and glaucoma. In promotion of better health for the aging, standards were developed for workers in nursing homes, homes for the aged, chronic disease hospitals, and organized home care programs.

A significant event of the year was the First National Conference on Nursing Homes and Homes for the Aged called by the Surgeon General to develop recommendations for raising the level of care in nursing homes. Basic services, accreditation, financing, and regulation were among the major areas considered.

To further glaucoma detection programs, demonstration equipment was furnished to the National Society for the Prevention of Blindness.

Developmental work leading to an evaluation of the effectiveness of medical rehabilitation-restorative services began with a pilot study of cerebrovascular accident patients at the D. C. General Hospital, where 80 percent of those treated who were ambulatory at discharge, remained so after discharge. In another hospital without a medical rehabilitation program, only 35 percent were ambulatory at discharge.

Among activities dealing with nutrition and weight control was a cooperative agreement with the Ohio Department of Health to provide the program with essential data on the operation of its "Meals on Wheels" program.

A joint project with the Washington State Department of Health and the Council on Aging for Seattle and King County was established to study the health benefits from a program of supervised activities and counselling in an aged population.

HEART DISEASE CONTROL

The Heart Disease Control Program works with State and local health departments to establish and improve control activities. Some important current needs are for: rheumatic fever programs; better care of cardiac patients in areas unattended by physicians; multi-discipline training; epidemiological studies; and professional and public education in the application of basic research findings.

A "Heart of the Home Program," cosponsored with the Minnesota Department of Health, Minnesota Heart Association and the Uni-

versity of Minnesota, was developed to simplify household chores and otherwise assist homemakers with a cardiac condition.

Screening activities included: a multi-phasic screening program in two Oklahoma counties using EKG, blood determination and pressure readings; screening for hypertension among people in Wisconsin who had received mobile chest X-rays; a heart disease screening project among school children in Mesa County, Colo.; and citywide screening in Los Angeles to find new heart disease among people previously tested.

A research study of the after-effects of severe heart illness, with reference to excessive disability, revealed that an initial emotional breakdown was related to better later adjustment or handling of emotional problems.

Data collection began in Georgia among vegetarian and non-vegetarian populations to test hypotheses relating fat intake to serum cholesterol levels.

One hundred obese children and 100 children of average weight identified in Hagerstown, Md., in 1936, have been located and re-examined to learn to what extent obesity among adults is conditioned by childhood obesity. Also, an effort will be made to identify sociological factors associated with the inability to lose weight.

OCCUPATIONAL HEALTH PROGRAM

Protection against occupational disease and injury and stimulation of preventive health services for the working population are important functions of the Occupational Health Program.

Through medical studies of the individual and engineering studies of the environment, pathological findings were correlated with exposure, all of which helped in designing control measures. One such study involved the relation of industrial noises to loss of hearing. Preliminary findings suggest that noise-induced hearing loss may occur earlier than had been expected; and continuous noise is more injurious than intermittent noise. Work is being done to learn the extent of permanent hearing loss under such conditions.

In study of health hazards in uranium mining and milling, emphasis is being placed on medical considerations, since European experience showed that lung cancer began to appear in uranium miners after about 15 years of exposure. Because of high turnover among this mining group, annual censuses have been made to learn if medical reasons were responsible for some of the men leaving the industry.

Silicosis remains the most significant occupational disease in the United States in terms of disability and compensation cost. These costs are estimated to be about \$10 million yearly. A joint PHS-U. S. Bureau of Mines study began on the relation of silicosis to occupation,

length of exposures, dust concentrations, the kind of dust and its particle size, and other environmental factors related to the problem. A medical phase of the study will seek X-ray evidence of silicosis among a sample of currently employed metal miners.

Completion of a census of professional registered nurses employed full time in United States industry on January 1957 showed 16,223 individuals employed. Since this number represented a 32 percent increase over that found in a 1952 census, several universities and schools of nursing have expressed a desire to provide more educational opportunities for occupational health nurses.

RADIOLOGICAL HEALTH MEDICAL PROGRAM

During most of the fiscal year, the medical aspects of radiological health were centered in the Division of Special Health Services, and the engineering aspects in the Division of Sanitary Engineering Services. In March 1958, these programs were combined in a newly created Division—the Division of Radiological Health.

Medical implications of ionizing radiation are based on the fact that effects on health are cumulative and irreversible. All sources of exposure must be considered in assessing and controlling the potential hazard—fallout from nuclear testing, use of X-rays in medical-dental diagnosis and therapy, and occupational sources of exposure, among others. The Service recommended, in cooperation with State and local health departments, that X-ray equipment be maintained in optimum operating condition to reduce all unnecessary exposure, both to operators and the public.

TUBERCULOSIS CONTROL

During the year, the use of community chest X-rays to find unknown cases of tuberculosis was subjected to intensive review. On the advice of a group of experts in this field, the Service recommended that mass X-ray surveys be concentrated among groups known to be at high risk of tuberculosis infection.

This recommendation was based on changes in the extent of the tuberculosis problem and on the problem of low-level exposure to radiation. The Service also recommended that State and local authorities consider using the tuberculin skin test in school health programs as the initial means of detecting tuberculosis.

The Ad Hoc Advisory Committee to the Surgeon General recommended that large scale BCG vaccination programs are not indicated in this country and that its use be limited to groups where risk of exposure is high and other means of control are weak.

The principal current research efforts of the program are directed at development of more effective prophylaxis methods. Studies on the effectiveness of isoniazid to prevent meningitis and other compli-

cations of primary tuberculosis in children were continued on 2,750 individuals in 32 clinics. The efficacy of isoniazid was also being tested among 27,000 persons in institutional populations, and household and other close contacts of newly reported active cases of tuberculosis.

Evaluation studies of antimicrobial therapy showed streptomycin plus pyrazinamide as used in a completed project, produced a more rapid reversal of infectiousness than isoniazid plus PAS, the most commonly used therapeutic regimen. Although the former regimen is more toxic than the latter, the first 12 weeks of treatment were relatively safe when most of the therapeutic effect was achieved.

Special emphasis was placed on determining the needs of unhospitalized patients for long term services. A pilot study of active tuberculosis patients who follow medical recommendations, as compared with those who lapse from supervision, was made in Minneapolis.

Division of Sanitary Engineering Services

The Division of Sanitary Engineering cooperates with State and local health departments, industry, and other groups on environmental health problems associated with air, water, and food. Division programs deal with the engineering aspects of such problems as air pollution, water supply and pollution control, milk and food sanitation, the sanitation of interstate carriers, radiological health, and professional training in sanitary engineering.

ROBERT A. TAFT SANITARY ENGINEERING CENTER

The Robert A. Taft Sanitary Engineering Center, Cincinnati, Ohio, is a national laboratory for research, specialized technical assistance, and advanced training in the activities of the Division. The Center cooperates with program personnel to develop new and improved testing procedures, and with industry and health departments in the application of these methods to local problems. Analysis of air pollution problems is given high priority, as well as a variety of conditions associated with the expanded use of ionizing radiation by industry and others.

AIR POLLUTION ENGINEERING PROGRAM

Although research dominates current program activities, long range planning is aimed at cooperative action with State and local communities to help control community air pollution.

Initial planning began for a National Conference on Air Pollution to be held in Washington, D. C. on November 18-20, 1958.

Research studies were under way in a variety of fields related to air pollution. Some of these studies involved cooperative work with other Federal agencies. For example, PHS specialists began work with the

Department of Agriculture on the use of plants as indicators of air pollution. The Tennessee Valley Authority began studies on the dispersion of stack gases.

Automobile exhaust research by the Service was accelerated at the request of the National Advisory Committee on Air Pollution and the Automobile Manufacturers Association.

In a study of community air pollution in Nashville, Tenn., data were collected in order to determine the health effects of air pollution. In addition to possible medical implications, the study should help to determine the type and extent of air pollution over a metropolitan area.

The National Air Sampling Network had 112 urban and 45 non-urban stations gathering data on the country's air pollution problem. State and local authorities in every State collected and analyzed air samplings to define and identify the extent and variety of air pollutants. In cooperation with the National Cancer Institute, air samples were analyzed in eight cities for known carcinogenic and other substances.

ENGINEERING RESOURCES AND TRAINING

The Division continued to provide training and career development opportunities for the sanitary engineering profession. Under the provisions of Public Law 911, a total of 121 engineering traineeship awards was made.

Special courses were sponsored to meet the increasing demands for engineering personnel in radiological programs. To stimulate interest in sanitary engineering as a career, material was produced for use among secondary school students.

In cooperation with the National Science Foundation, work continued on a roster of sanitary engineering manpower in the United States.

GENERAL ENGINEERING

Special citations, which are awarded annually to qualifying interstate carrier companies, went to 12 vessel companies and 5 railroads for maintaining high sanitation standards in all operating units.

Significant developments toward world-wide uniformity of standards resulted from staff work with the Expert Committee on Airport Sanitation of the World Health Organization. Other international activities included cooperation with the Pan American Health Organization on sanitation standards for tourist establishments in Central and South America.

An expanded Maritime Service construction program required additional inspection of potable water systems, food service categories, ratproofing, and general plumbing arrangements. In the airline program, inspections were made of individual aircraft, servicing areas,

and caterers similar to that done for many years on railroads. Since buses now carry water, serve food, and maintain restrooms aboard, interstate quarantine regulations were applied to all units as well as their servicing areas.

To solve the problems of household waste disposal, a study was initiated on individual household aerobic sewage treatment systems to develop criteria for evaluation, testing, and conditions for use.

MILK AND FOOD SANITATION PROGRAM

A continuing pilot study of milk samples from 10 milksheds of the Nation showed radioactivity to be well within the maximum permissible concentrations published by the National Committee on Radiation Protection and Measurement.

Control of the sanitary quality of the aquatic environment was a primary activity of the shellfish sanitation program, and cooperative action with coastal States supplemented work with shippers and distributors. Improved biochemical and assay methods developed at SEC to determine paralytic shellfish poisoning showed increased reliability and accuracy during unexpected outbreaks of the poison in West Coast shellfish species and certain marine clam beds.

A final report on the joint University of California-Public Health Service Q fever pasteurization studies was released covering incidence, methodology, laboratory thermal inactivation, and commercial equipment studies. Study of the organism in dairy products other than milk is continuing at the University.

New and potential reservoirs of food-borne infection and contamination, including effects of disposal of radioactive wastes, received attention.

Work continued with the States to correct deficiencies in the poultry processing industry. Scheduled for completion next year, the poultry sanitation demonstration project in Denver, Colo. made substantial progress. Other work involved cooperation with States on interstate milk shipment problems, and with industry and official health agencies on local regulations necessary for the vending of foods and beverages.

RADIOLOGICAL HEALTH ENGINEERING PROGRAM

Increasing use of ionizing radiation resulted in extended Public Health Service cooperative action with State and local groups ranging from specific technical matters to assistance in developing comprehensive programs for radiation protection. Some of these activities included methods of reducing clinical exposure to X-rays; monitoring programs to determine the extent of radioactive contamination; and determination of the adequacy of proposed radioactive waste treatment and disposal facilities used in conjunction with reactors and use of radioisotopes.

Cooperative work on radiological health and safety was undertaken with the Maritime Administration on its nuclear powered merchant ship program, with the Navy on its Nuclear Propulsion Program, and with coastal authorities on monitoring of ships entering ports with cargoes having a potential radioactive hazard.

The Service continued to carry out off-site monitoring activities at the Atomic Energy Commission Nevada nuclear test site, supplemented by a medical liaison officer network.

Under an agreement with the Atomic Energy Commission, the National Radiation Air and Water Surveillance Network was increased to 45 stations. This work was expanded to include analysis of weekly samples from 50 raw water supplies.

WATER SUPPLY AND WATER POLLUTION CONTROL

To provide a sound basis for pollution abatement programs, activities were directed toward the collection and analysis of data on existing water and waste treatment facilities and needs, the continuous collection of water quality data over a national network of 40 sampling stations, and studies of the economics of water pollution. Research at the SEC and other field investigations helped measure the complex problems created by the manufacture of new chemical and synthetic products. The construction grants program and interstate enforcement activities are increasing the rate of construction of pollution abatement facilities by States and local communities.

Inventories of community water supply facilities and municipal and industrial waste treatment works were completed.

At the end of fiscal year 1958, Federal grants under Public Law 660 amounting to \$85.3 million went to 1,038 communities in support of sewage treatment work construction totaling \$441.8 million. About 97 percent of these grants went to communities under 125,000 population.

Some sanitary engineering studies involved small sewage treatment plant design in the North Central United States; design and cost of constructing sewage stabilization ponds, a less expensive method of sewage disposal now receiving greater attention and use by smaller communities; and determination of sewage treatment plant financing problems by public bodies.

Formal conferences were held to seek abatement of interstate pollution involving the Potomac River in the metropolitan Washington area; the Missouri River at Kansas City; Mississippi interstate waters in the St. Louis area; and the Animas River in the Southwest for alleged radioactive and other wastes.

Analysis continued of the adequacy of State water pollution control laws. Nine States requested and received advice on proposed water

pollution control legislation, and seven States enacted such laws during the year.

Other major projects involved finding more effective treatment methods for Lake Michigan water, in cooperation with Northwestern University; a study of the status of pollution in the New York Harbor area; water quality effects of economic poisons used in spray programs for eradication of the gypsy moth; the effects of hydroelectric plants on water quality for other water uses; and the effects of tides and currents on pollution.

Communicable Disease Center

The Communicable Disease Center operates as a working partner of the States in the control of infectious disease. It is located in Atlanta, Ga., with laboratories and field stations in various parts of the United States. The Center provides technical assistance to the States and develops practical tools in the form of knowledge or improved techniques to enable the States to carry out effective disease control programs. During the year, construction was started on new headquarters for the Center on 14 acres of land adjoining the Emory University campus.

EPIDEMIC AND DISASTER AID

CDC gave epidemic aid in 42 instances. Aid was given in connection with the Asian influenza epidemic, staphylococcal and other hospital-acquired infections, health problems on Indian reservations, and the East Pakistan outbreak of smallpox and cholera. Hurricane Audrey and floods in Texas, Louisiana, Arkansas, and Oklahoma accounted for 11 requests for disaster aid.

REPRESENTATIVE FIELD AND LABORATORY STUDIES

Asian Influenza

Prior interest in respiratory diseases and international responsibilities in the influenza field prepared CDC to initiate its Influenza Surveillance Program in July and to serve as the principal laboratory resource during the Asian influenza epidemic. Functioning as strain study center and focal point for laboratory information, CDC also established contractual diagnostic and reference services in 37 States, Alaska, Hawaii, and Puerto Rico with special funds allocated by Congress. Typing reagents for Asian and older influenza strains, with instructions for their use, were prepared and distributed to 160 laboratories. Investigations were conducted on the efficacy of influenza vaccines and the practicability of different immunization procedures. Detailed, current accounts on the progress of the epidemic were published weekly.

Venereal Diseases

The trend in cases of infectious syphilis in the United States continued upward with 20 States and the District of Columbia reporting increases. This year there were 6,651 cases of lesion syphilis, 5.9 per cent more than in 1957. A total of 125,978 cases of syphilis in all stages was reported by State health departments, a decline of 7 per cent over last year. Deaths attributed to syphilis numbered 3,870.

The number of reported cases of gonorrhea was 219,219, a slight increase over 1957.

There were 49,484 cases of venereal disease reported among persons under 20 years of age. Thirty-four States reported increases in the proportion of venereal disease among this age group. Fifty-three percent of all infectious cases occurred among persons 15 to 24 years of age.

Federal funds supported 93 venereal disease projects in 41 States. Activities included selective blood testing, contact interviewing and investigation, and cooperation with private physicians to improve morbidity reporting and extend epidemiologic services.

Cluster testing, the new casefinding method that extends contact investigation to include blood testing of associates of patients and contacts, continues to be an excellent epidemiological tool and has been extended to 10 States.

The relative sensitivity and specificity of treponemal and nontreponemal tests in the serodiagnosis of syphilis were evaluated in 15 laboratories employing 38 different procedures. This evaluation was conducted by the Serologic Evaluation and Research Assembly.

The search for an immunizing agent for syphilis continued both in Public Health Service and in other research laboratories. The Reiter protein antigen complement fixation test showed promise as a specific and economical treponemal test for syphilis.

Poliomyelitis and the Polio-Like Diseases

Incidence of poliomyelitis was about one-third that of 1956, with even more marked reduction in paralytic cases. A large proportion of the nonparalytic cases, some producing residual muscle weakness, was caused by Coxsackie Type B and ECHO viruses, but paralytic cases were usually true polio. A new pathogen responsible for epidemic meningitis and death in infants is being sought among unclassified bacteria isolated from affected newborn infants during two hospital outbreaks.

Surveillance demonstrated the continued safety and effectiveness of the polio vaccine. Efforts are being made to simplify and improve diagnostic procedures for polio and the polio-like diseases.

Staphylococcal Infections

Coordinated planning was begun for long-range control of staphylococcal and other hospital-acquired infections, which, in some instances, are caused by antibiotic resistant strains of bacteria. These are creating nursery-obstetrical and general medical problems, and producing surgical wound infections. Resurgence of these problems after many years of relative freedom following the advent of the science of bacteriology and the development of aseptic techniques is a matter of serious concern.

Viral Encephalitis

Field investigations showed that mass infection of birds with Eastern encephalitis in fresh water swamps enables various mosquito species to spread the virus far afield; that Western encephalitis virus can survive through the winter in experimentally infected birds and mosquitoes; and that the extreme efficiency of two mosquito species in transmitting St. Louis encephalitis would justify control measures in cities in risk areas.

Rabies

Wildlife rabies studies were continued in the Southeast, in New York, and in the newly established Southwestern Wildlife Rabies Station at the New Mexico State College. As broadly applied control programs continue to reduce the urban rabies problem in dogs, control measures are being sought against the large reservoir of infection in skunks, foxes, and other wildlife. Bat rabies has been reported from 19 States since 1953.

Diarrheal Diseases

Growing resistance of *Salmonella typhimurium* in fowl to tetracycline antibiotics has been detected, and the baseline of resistance in old cultures was established. Since tetracyclines are now common additives to animal diets, development of resistant bacteria must be watched closely.

A 3-year investigation in eastern Kentucky showed that diarrheal disease morbidity, *Shigella* infections in preschool children, and *Ascaris* infections in the general population were inversely related to the availability of sanitary facilities.

Anthrax

An outbreak of anthrax in a New England textile mill included five cases of inhalation anthrax, four of which were fatal. This outbreak—the first in which inhalation anthrax occurred in epidemic form—was studied intensively because of its serious implications in occupational health and in national defense. Cases were traced to

imported goat hair. No cutaneous or inhalation anthrax developed in vaccinated individuals.

Plague

In a simulated field test, the transfer of radioactive fleas between California meadow voles and domestic (Norway) rats indicated how sylvatic plague could be spread to urban areas in the enzootic western States.

LABORATORY SERVICES AND NEW TECHNIQUES

This year the Center identified over 42,000 troublesome isolates sent in by State and Territorial laboratories, Federal agencies, and foreign countries. Because the wide range of diagnostic reagents, which are essential in the laboratory diagnosis of viral, fungal, bacterial, and parasitic diseases, is not available commercially, CDC created a special section to produce and evaluate hundreds of these materials.

Rapid growth of virulent strains—but not avirulent variants—of many organisms (tubercle bacilli, other cultivable mycobacterial pathogens, brucella, *Bacterium tularensis*, staphylococci, streptococci, typhoid bacilli, and *Histoplasma capsulatum*) was attained in human tissue culture cells, and the action of antibiotics on them was observed.

Significant cytopathic changes were obtained in hamster kidney tissue cultures inoculated with fixed rabies virus after repeated passage, and with arthropod-borne encephalitis viruses. This was the first time rabies virus has been propagated in the absence of nervous tissue—the component of the present vaccine responsible for the paralytic syndrome sometimes encountered in humans. Use of the hamster kidney tissue system may simplify diagnostic immunologic studies in these important viral diseases and lead to an improved rabies vaccine and a modified live virus vaccine against encephalitis for human use.

With increased availability of fluorescein dyes and improved labeling procedures, considerable progress has been made in applying the fluorescent antibody techniques to the rapid detection and identification of various pathogens. Especially significant is the straining of rickettsiae and viruses either from tissue culture or from direct smears of infected organs.

VECTOR CONTROL

Continuation and extension of the progress already made in the control of vector-borne diseases are threatened by the growing resistance to insecticides of many important disease vectors. A testing kit developed by CDC has been accepted by WHO as a standard method for worldwide use in determining the susceptibility of mosquitoes to insecticides.

A pilot demonstration project has been activated in Pensacola, Florida, to obtain objective data on cost, methodology and practicality of eradicating *Aedes aegypti*, the urban vector of yellow fever, in the United States.

A practical apparatus was developed for sampling large volumes of water for cercariae of *Schistosoma mansoni* to facilitate investigation of the epidemiology of schistosomiasis in Puerto Rico.

TRAINING

More than 7,200 persons from State and local health departments, Federal agencies, academic institutions, industry, other organizations, and from abroad, received organized training from CDC in various aspects of communicable disease control. Particular emphasis was placed on courses in the principles of epidemiology and their application for all the professional members of the health team.

Division of Dental Public Health

The Division of Dental Public Health develops new methods of dental disease control and encourages their adoption by State and local health departments.

States were given professional and technical assistance in dealing with such problems as personnel utilization, program planning and budget management, defining dental public health problems, administering dental health clinics, providing dental services for public assistance recipients, and carrying out inservice training programs.

FLUORIDATION

Fluoridation of community water supplies increased throughout the country. Over 34 million people in 1,709 communities, including a majority of the Nation's 18 largest cities, were using fluoridated drinking water. About 90 percent of all public water supplies serve communities with less than 5,000 population. Analysis of national fluoridation data showed that relatively few of these smaller communities have fluoridated their public water supplies.

One problem associated with fluoridation has been a shortage of suitable fluoride compounds for use in community water supplies. Division research found that the very common substance, fluorspar, could be used. A demonstration now in progress in a small community shows that the use of fluorspar will reduce by two-thirds the current cost of fluoridation.

A practical device developed by Division staff for fluoridation of individual home water supplies now makes possible the extension of fluoridation to rural and suburban populations not served by public water supplies.

DENTAL STUDIES

In New Mexico, a 2-year project was begun to explore the prevalence and patterns of pyorrhea and other periodontal diseases. Staff assistance was supplied for a study on dental needs of people in nursing homes in two Georgia counties; for a Jefferson County, Mo. multiphasic disease study of the aged which will include dental disease among ten conditions examined; and for a survey in Colorado to analyze dental services supplied in a State mental hospital.

Division of International Health

Through this Division, the Public Health Service participates in the activities of the World Health Organization, the Pan American Sanitary Organization, the South Pacific Commission, and other health agencies. It offers program and policy guidance to the Department of State on international health matters and to the International Cooperation Administration on training, educational and technical aid to United States Operations Missions abroad.

At the invitation of Congress, the WHO held its Tenth Anniversary Commemorative Session in Minneapolis, Minn., on May 26-27, 1958. This was immediately followed by sessions of the Eleventh World Health Assembly which elected the Surgeon General its President.

The Division completed special health studies on Taiwan, Hong Kong, Macao, Jordan, and Iran. This brings to 12 the number of studies made under the Division's international epidemiology program which began in 1956.

Reciprocal exchange missions in public health administration from the United States and the U. S. S. R. visited both countries late in 1957. This was supplemented by a January 1958 agreement signed by both countries covering a broad area of cultural and scientific exchange missions in the fields of medicine and public health.

At the end of the fiscal year, 162 PHS officers (physicians, nurses, engineers, and other technicians) were assigned to field missions in which the United States participates abroad. Assistance by American health technicians ranges from consultation on demonstration health projects to evaluation of established national health programs. In response to a request, the Surgeon General recommended to ICA that health activities be intensified in the control of tuberculosis, trachoma, schistosomiasis and in the improvement of sanitation and the construction of medical facilities.

A total of 599 foreign health trainees from 76 countries was given supervision and guidance in securing medical and public health training which will help them to develop health department programs when they return home. Public Health Service installations provided training for 163 of the trainees and 266 were placed in academic or clinical centers for specialized graduate work.

Table 1.—Statement of appropriations, authorizations, obligations, and balances, fiscal year 1958

[In thousands]

| Appropriations | Funds available for obligation | | | | Total funds available | Amounts obligated |
|---|-----------------------------------|--------------------------------------|-------------------------|---------------------------------|-----------------------|-------------------|
| | Appropriations and authorizations | Net transfers between appropriations | Repayments for services | Prior year unobligated balances | | |
| Total..... | \$565,963 | \$2,320 | \$26,537 | \$116,305 | \$718,477 | \$613,720 |
| Appropriations, PHS..... | 565,846 | 2,320 | 26,537 | 116,142 | 710,845 | 607,734 |
| Control of tuberculosis..... | 7,000 | 51 | 14 | ----- | 7,065 | 7,051 |
| Control of venereal diseases..... | 4,415 | 88 | ----- | ----- | 4,503 | 4,460 |
| Assistance to States, general..... | 22,592 | 114 | 248 | ----- | 22,954 | 22,870 |
| Control of communicable diseases..... | 7,050 | 122 | 416 | ----- | 7,588 | 7,576 |
| Grants and special studies, Territory of Alaska..... | 2,165 | 12 | 38 | ----- | 2,215 | 2,211 |
| Sanitary engineering activities (1958-59)..... | 75 | ----- | ----- | ----- | 75 | 26 |
| Sanitary engineering activities (1958)..... | 12,640 | 172 | 962 | ----- | 13,774 | 13,535 |
| Foreign quarantine service..... | 3,876 | 147 | 164 | ----- | 4,187 | 4,131 |
| Dependents medical care..... | 900 | 1-1 | ----- | ----- | 899 | 899 |
| Hospitals and medical care (1958)..... | 44,399 | 224 | 4,409 | ----- | 49,032 | 48,996 |
| Hospitals and medical care (1958-59)..... | 150 | ----- | ----- | ----- | 150 | 150 |
| Hospitals and medical care (1957-58)..... | 1 | ----- | ----- | ----- | 1 | 1 |
| Salaries and expenses, hospital construction services..... | 1,450 | 48 | 1 | ----- | 1,499 | 1,492 |
| Indian health activities (1958-59)..... | 400 | ----- | ----- | ----- | 400 | 158 |
| Indian health activities (1958)..... | 40,100 | 675 | 711 | 2-615 | 40,871 | 40,810 |
| Construction of Indian health facilities (annual)..... | 3,130 | ----- | ----- | ----- | 3,130 | 640 |
| Construction of Indian health facilities (no year)..... | ----- | ----- | ----- | 11,526 | 11,526 | 3,889 |
| Grants for hospital construction (1958-59)..... | 121,200 | ----- | ----- | ----- | 121,200 | 44,847 |
| Grants for hospital construction (1957-58)..... | ----- | ----- | ----- | 86,083 | 86,083 | 85,187 |
| Surveys and planning for hospital construction..... | ----- | ----- | ----- | 1,174 | 1,174 | 124 |
| General research and services, National Institutes of Health..... | 14,026 | 58 | 1 | ----- | 14,085 | 14,082 |
| Salaries, expenses, and grants, National Cancer Institute..... | 56,402 | ----- | 1 | ----- | 56,403 | 55,455 |
| Mental health activities..... | 39,217 | 114 | 36 | ----- | 39,367 | 39,277 |
| Salaries, expenses, and grants, National Heart Institute..... | 35,936 | 147 | 1 | ----- | 36,084 | 35,974 |
| Dental health activities..... | 6,430 | 50 | 39 | ----- | 6,519 | 6,505 |
| Buildings and facilities, Cincinnati, Ohio..... | ----- | ----- | ----- | 31 | 31 | 20 |
| Arthritis and metabolic disease activities..... | 20,385 | 97 | 262 | ----- | 20,744 | 20,742 |
| Allergy and infectious disease activities..... | 17,400 | 114 | 18 | ----- | 17,532 | 17,525 |
| Neurology and blindness activities..... | 21,387 | ----- | 8 | ----- | 21,395 | 21,068 |
| Operations, National Library of Medicine..... | 1,450 | 47 | ----- | ----- | 1,497 | 1,496 |
| Construction of library facilities..... | ----- | ----- | ----- | 18 | 18 | -7 |
| Grants for waste treatment works construction..... | 45,000 | ----- | ----- | 12,379 | 57,379 | 47,709 |
| Construction of Biologics Standards Laboratory Building..... | ----- | ----- | ----- | 3,343 | 3,343 | 2,745 |
| Construction of surgical facilities..... | ----- | ----- | ----- | 1,556 | 1,556 | 8 |
| Construction of Dental Research Building..... | ----- | ----- | ----- | 129 | 129 | 28 |
| Grants for construction of health research facilities..... | 30,000 | ----- | ----- | ----- | 30,000 | 30,000 |
| Construction of animal quarters..... | ----- | ----- | ----- | 188 | 188 | 34 |
| General office building..... | ----- | ----- | ----- | 129 | 129 | 67 |
| Construction of research facilities..... | ----- | ----- | ----- | 201 | 201 | 97 |
| Retired pay of commissioned officers..... | 1,570 | 1-119 | ----- | ----- | 1,451 | 1,451 |
| Salaries and expenses..... | 5,100 | 160 | 41 | ----- | 5,301 | 5,280 |
| National Institutes of Health management fund..... | ----- | ----- | 19,167 | ----- | 19,167 | 19,125 |

See footnotes at end of table.

Table 1.—Statement of appropriations, authorizations, obligations, and balances, fiscal year 1958—Continued

| Appropriations | Funds available for obligation | | | | Total funds available | Amounts obligated |
|--|-----------------------------------|--------------------------------------|-------------------------|---------------------------------|-----------------------|-------------------|
| | Appropriations and authorizations | Net transfers between appropriations | Repayments for services | Prior year unobligated balances | | |
| Appropriations, special project funds made available by other agencies----- | | | | | 7,352 | 5,849 |
| Salaries and expenses, Bureau of Prisons (transfer to HEW, PHS)----- | | | | | 1,751 | 1,748 |
| American Sections, International Commission, State (transfer to HEW, PHS)----- | | | | | 73 | 72 |
| Operations, Federal Civil Defense Administration (transfer to HEW, PHS)----- | | | | | 175 | 174 |
| Operating expenses, Atomic Energy Commission (transfer to HEW, PHS)----- | | | | | -1 | -1 |
| Research and development, Navy (transfer to HEW, PHS)----- | | | | | 8 | 8 |
| Farm labor supply revolving fund, Bureau of Employment Security (transfer to HEW, PHS)----- | | | | | 373 | 347 |
| Administrative expenses, Section 411, Mutual Security Agency Act, Executive (transfer to HEW)----- | | | | | 66 | 62 |
| Technical cooperation, general executive (transfer to HEW) (no year)----- | | | | | 1,853 | 1,209 |
| Technical cooperation, general executive (transfer to HEW) (annual)----- | | | | | 2,948 | 2,153 |
| Special assistance, general, executive (transfer to HEW)----- | | | | | 79 | 77 |
| President's fund for Asian economic development, executive (transfer to HEW)----- | | | | | 27 | |
| Gift funds donated for general and specific purposes----- | 116.7 | | | 162.7 | 279.4 | 136.9 |
| Patients' benefit fund, Public Health Service hospitals----- | 24.2 | | | 20.0 | 44.2 | 29.9 |
| Public Health Service unconditional gift fund----- | 25.0 | | | 105.4 | 130.4 | 84.3 |
| Public Health Service conditional gift fund----- | 67.5 | | | 37.3 | 104.8 | 22.7 |

¹ Adjusted by Treasury warrant.² Liquidation of contract authorizations obligated in 1957 fiscal year.

Table 2.—*Commissioned officers and civil service personnel as of June 30, 1958*

| | Full-time | | | | Part-time (civilian) | | | | | |
|--|-----------------------|-----------------------|----------|------------------------------|----------------------|-----------------|------------------------|----------------------|-------|-----------------------|
| | Grand total full-time | Commissioned officers | Civilian | | | Total part-time | When actually employed | Without compensation | Other | |
| | | | Total | Washington metropolitan area | States | | | | | Outside United States |
| Public Health Service..... | 24,483 | 13,503 | 20,980 | 8,581 | 11,079 | 1,320 | 3,134 | 2,762 | 2,000 | 372 |
| Office of the Surgeon General..... | 613 | 51 | 562 | 524 | 38 | ----- | 13 | 2 | 8 | 3 |
| Immediate Office of the Surgeon General..... | 32 | 7 | 25 | 25 | ----- | ----- | 2 | 1 | ----- | 1 |
| Division of Finance..... | 131 | ----- | 131 | 129 | 2 | ----- | ----- | ----- | ----- | ----- |
| Division of Administrative Services..... | 132 | 6 | 126 | 94 | 32 | ----- | ----- | ----- | ----- | ----- |
| Division of Personnel..... | 143 | 14 | 129 | 129 | ----- | ----- | 2 | ----- | ----- | 2 |
| Division of Public Health Methods..... | 107 | 2 | 105 | 101 | 4 | ----- | 9 | 1 | 8 | ----- |
| Offices other than Divisions (Emergency Plans and Requirements, Information, Executive)..... | 49 | 3 | 46 | 46 | ----- | ----- | ----- | ----- | ----- | ----- |
| Details to other agencies..... | 19 | 19 | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Bureau of Medical Services..... | 12,924 | 1,620 | 11,304 | 1,318 | 8,763 | 1,223 | 695 | 447 | 33 | 215 |
| Office of the Chief..... | 30 | 4 | 26 | 26 | ----- | ----- | 1 | 1 | ----- | ----- |
| Division of Dental Resources..... | 25 | 5 | 20 | 18 | 2 | ----- | 52 | 52 | ----- | ----- |
| Division of Foreign Quarantine..... | 559 | 42 | 517 | 31 | 404 | 82 | 32 | 11 | 10 | 11 |
| Division of Hospital and Medical Facilities..... | 108 | 11 | 97 | 94 | 3 | ----- | 15 | 15 | ----- | ----- |
| Division of Hospitals..... | 6,422 | 1,006 | 5,416 | 207 | 5,190 | 19 | 342 | 233 | 10 | 99 |
| Freedmen's Hospital..... | 792 | ----- | 792 | 792 | ----- | ----- | 30 | ----- | ----- | 30 |
| Division of Indian Health..... | 4,603 | 341 | 4,262 | 106 | 3,035 | 1,121 | 191 | 107 | 13 | 71 |
| Division of Nursing Resources..... | 44 | 12 | 32 | 32 | ----- | ----- | 28 | 28 | ----- | ----- |
| Details to other agencies..... | 341 | 199 | 142 | 12 | 129 | 1 | 4 | ----- | ----- | 4 |
| Bureau of State Services..... | 3,910 | 1,024 | 2,886 | 941 | 1,876 | 69 | 2,138 | 159 | 1,941 | 38 |
| Office of the Chief..... | 111 | 6 | 105 | 105 | ----- | ----- | 15 | 3 | 11 | 1 |
| Communicable Disease Center..... | 1,140 | 217 | 923 | 8 | 911 | 4 | 93 | 49 | 41 | 3 |
| Division of Dental Public Health..... | 52 | 20 | 32 | 30 | 2 | ----- | 12 | 2 | 5 | 5 |
| Division of General Health Services..... | 396 | 47 | 349 | 291 | 2 | 56 | 1,902 | 31 | 1,870 | 1 |
| Division of International Health..... | 66 | 9 | 57 | 57 | ----- | ----- | 1 | ----- | ----- | ----- |
| Division of Radiological Health..... | 20 | 15 | 5 | 5 | ----- | ----- | ----- | ----- | ----- | ----- |
| Division of Sanitary Engineering Services..... | 697 | 191 | 506 | 141 | 365 | ----- | 53 | 33 | 4 | 16 |
| Division of Special Health Services..... | 578 | 137 | 441 | 296 | 136 | 9 | 58 | 38 | 9 | 11 |

See footnotes at end of table.

Table 2.—*Commissioned officers and civil service personnel as of June 30, 1958—Continued*

| | Full-time | | | | Part-time (civilian) | | | |
|--|-----------------------|------------------------|----------|--------------------------------|----------------------|-----------------------------------|----------------------|-------|
| | Grand total full-time | Commis-sioned officers | Civilian | | | Total part-time actually employed | Without compensation | Other |
| | | | Total | Wash-ington metro-politan area | States |  |  |  | Outside United States |
| Regional Offices..... | 666 | 198 | 468 | 8 | 400 | | 4 | 1 |
| Details to other agencies..... | 184 | 184 | | | | | | |
| National Institutes of Health..... | 6,823 | 808 | 6,015 | 5,594 | 393 | 28 | 286 | 114 |
| Office of the Director..... | 50 | 6 | 44 | 44 | | | 2 | 1 |
| National Cancer Institute..... | 1,038 | 163 | 875 | 721 | 154 | | 40 | 24 |
| National Heart Institute..... | 463 | 107 | 356 | 297 | 59 | | 34 | 17 |
| National Institute of Allergy and Infectious Diseases..... | 486 | 86 | 400 | 248 | 139 | 13 | 10 | 1 |
| National Institute of Arthritis and Metabolite Diseases..... | 420 | 83 | 337 | 335 | 2 | | 24 | 1 |
| National Institute of Dental Research..... | 126 | 38 | 88 | 88 | | | 16 | 1 |
| National Institute of Mental Health..... | 535 | 88 | 447 | 409 | 38 | | 53 | 25 |
| National Institute of Neurological Diseases and Blindness..... | 273 | 41 | 232 | 217 | 23 | 15 | 21 | 2 |
| Clinical Center..... | 1,466 | 121 | 1,345 | 1,345 | | | 50 | 26 |
| Division of Biologies Standards..... | 187 | 22 | 165 | 165 | | | 2 | 1 |
| Division of Business Operations..... | 717 | 1 | 716 | 716 | | | 6 | 4 |
| Division of Research Grants..... | 232 | 9 | 223 | 223 | | | 24 | 9 |
| Division of Research Services..... | 819 | 32 | 787 | 786 | 1 | | 4 | 2 |
| Details to other agencies..... | 11 | 11 | | | | | | |
| National Library of Medicine..... | 213 | | 213 | 204 | 9 | | 2 | 2 |

¹ Includes 1,478 Regular Corps officers, 1,883 Active Reserve officers, and 142 Commissioned Reserve officers on temporary training duty.² Excludes those part-time employees not in pay status during the month of June 1958.³ Includes 1,862 collaborating epidemiologists and special agents.

Table 3.—Research grants and awards, fiscal year 1958

| Program | Research grants | | Construction grants | | Research fellowships | | | | Training grants | | Traineeships | |
|--|-----------------|----------------|---------------------|----------------|----------------------|---------------|-----------|------------|-----------------|----------------|--------------|---------------|
| | Number | Amount | Number | Amount | Full-time | | Part-time | | Number | Amount | Number | Amount |
| | | | | | Number | Amount | Number | Amount | | | | |
| | | | | | | | | | | | | |
| Total | 7, 028 | \$99, 480, 968 | 177 | \$30, 200, 095 | 1, 272 | \$5, 746, 015 | 1, 057 | \$684, 936 | 1, 725 | \$34, 032, 216 | 428 | \$2, 092, 269 |
| Allergy and infectious diseases | 906 | 10, 822, 476 | | | 31 | 116, 792 | | | 30 | 580, 914 | | |
| Arthritis and metabolic diseases | 961 | 11, 189, 029 | | | 80 | 344, 063 | | | 190 | 2, 393, 573 | 65 | 264, 873 |
| Cancer | 1, 301 | 22, 040, 193 | | | 301 | 1, 094, 901 | 160 | 103, 680 | 400 | 4, 560, 722 | 227 | 881, 657 |
| Dental | 1, 292 | 2, 826, 572 | | | 72 | 324, 920 | 270 | 174, 960 | 17 | 449, 191 | | |
| Heart | 1, 357 | 19, 699, 434 | | | 331 | 1, 307, 852 | 135 | 87, 480 | 205 | 4, 255, 389 | 23 | 110, 990 |
| Mental health | 672 | 12, 445, 307 | | | 187 | 647, 070 | | | 523 | 14, 582, 836 | | |
| Neurological diseases and blind- ness | 785 | 10, 844, 502 | | | 112 | 428, 580 | 152 | 98, 496 | 269 | 4, 248, 868 | 113 | 834, 749 |
| General (Division of Research Grants) | 754 | 9, 613, 455 | 177 | 30, 200, 095 | 153 | 1, 281, 237 | 340 | 220, 320 | 91 | 2, 960, 723 | | |

Table 4.—*Payments to States, fiscal year 1958*
[In thousands]

| State | Veneral disease special projects | Tubercu- losis control | General health | Mental health | Cancer control | Heart disease control | Water pollution control | Medical facilities survey and planning | Hospital and medical facilities construction | Waste treat- ment works construction | Community facilities construction |
|----------------------|----------------------------------|---------------------------|----------------|---------------|----------------|-----------------------|-------------------------|--|--|---|-----------------------------------|
| Total 1 | 2 \$1, 676 | \$4, 494 | \$14, 935 | \$3, 955 | \$2, 214 | \$2, 046 | 3 \$2, 528 | \$124 | \$105, 292 | \$16, 884 | \$13 |
| Alabama | 35 | 102 | 420 | 85 | 54 | 53 | 63 | 4 | 3, 722 | 525 | --- |
| Arizona | 20 | 58 | 122 | 26 | 17 | 17 | 2 | --- | 1, 453 | 213 | --- |
| Arkansas | 71 | 71 | 267 | 25 | 35 | 17 | 44 | --- | 2, 695 | 52 | --- |
| California | 95 | 288 | 875 | 262 | 150 | 121 | 135 | 12 | 4, 316 | 1, 419 | --- |
| Colorado | 9 | 36 | 158 | 37 | 24 | 27 | 30 | 1 | 1, 666 | 198 | --- |
| Connecticut | 8 | 45 | 128 | 46 | 26 | 20 | 31 | 7 | 724 | --- | --- |
| Delaware | 5 | 17 | 57 | 21 | 5 | 9 | 31 | --- | 203 | --- | --- |
| District of Columbia | 37 | 42 | 53 | 26 | 10 | 17 | 9 | --- | 418 | 187 | --- |
| Florida | 86 | 85 | 354 | 77 | 52 | 51 | 57 | --- | 2, 627 | 833 | --- |
| Georgia | 138 | 105 | 432 | 77 | 57 | 63 | 20 | --- | 2, 498 | 80 | --- |
| Idaho | 4 | 16 | 89 | 26 | 13 | 17 | 20 | 3 | 938 | 18 | --- |
| Illinois | 90 | 243 | 618 | 200 | 116 | 66 | 70 | --- | 4, 132 | 914 | 5 |
| Indiana | --- | 88 | 341 | 63 | 54 | 41 | 68 | --- | 3, 435 | 460 | --- |
| Iowa | --- | 40 | 214 | 59 | 16 | 35 | 21 | --- | 1, 636 | 460 | --- |
| Kansas | 4 | 35 | 173 | 37 | 27 | 30 | 37 | 10 | 1, 465 | 505 | --- |
| Kentucky | 34 | 124 | 361 | 77 | 43 | 48 | 58 | 3 | 3, 839 | 487 | --- |
| Louisiana | 64 | 89 | 341 | 76 | 47 | 41 | 56 | --- | 2, 408 | 446 | --- |
| Maine | 25 | 109 | 109 | 22 | 10 | 19 | 26 | --- | 657 | --- | --- |
| Maryland | 21 | 88 | 206 | 62 | 34 | 36 | 48 | --- | 1, 919 | 361 | 8 |
| Massachusetts | --- | 115 | 344 | 103 | 62 | 34 | 82 | --- | 1, 564 | 60 | --- |
| Michigan | 53 | 148 | 514 | 146 | 78 | 71 | 68 | --- | 3, 397 | 847 | --- |
| Minnesota | --- | 52 | 284 | 71 | 27 | 30 | 53 | 6 | 2, 519 | 112 | --- |
| Mississippi | 55 | 76 | 359 | 63 | 45 | 53 | 37 | --- | 2, 976 | 33 | --- |
| Missouri | 27 | 112 | 361 | 97 | 59 | 54 | 63 | 14 | 2, 123 | 246 | --- |
| Montana | 3 | 21 | 80 | 26 | 13 | 16 | 19 | --- | 483 | 58 | --- |
| Nebraska | 6 | 24 | 139 | 32 | 25 | 22 | 16 | --- | 831 | 118 | --- |
| Nevada | 4 | 11 | 45 | 23 | 4 | 9 | 8 | 3 | 367 | 37 | --- |
| New Hampshire | --- | 4 | 58 | 25 | --- | 13 | 25 | --- | 996 | 93 | --- |
| New Jersey | 47 | 122 | 346 | 115 | 61 | 52 | 68 | 5 | 1, 931 | 417 | --- |
| New Mexico | 32 | 35 | 113 | 26 | 15 | 20 | 22 | --- | 904 | 255 | --- |
| New York | 134 | 414 | 1, 084 | 334 | 201 | 145 | 185 | 10 | 5, 222 | 265 | --- |
| North Carolina | 125 | 101 | 595 | 91 | 67 | 51 | 82 | --- | 4, 113 | 787 | --- |
| North Dakota | --- | 22 | 103 | 26 | 15 | 19 | 22 | 3 | 1, 113 | 117 | --- |
| Ohio | 37 | 194 | 642 | 199 | 110 | 83 | 117 | --- | 2, 286 | 1, 341 | --- |
| Oklahoma | 13 | 61 | 240 | 53 | 35 | 36 | 41 | --- | 1, 097 | 894 | --- |
| Oregon | 36 | 78 | 161 | 36 | 17 | 17 | 32 | 7 | 1, 470 | 373 | --- |
| Pennsylvania | 56 | 266 | 837 | 245 | 127 | 112 | 142 | 2 | 3, 439 | 425 | --- |

| | | | | | | | | |
|---------------------------|-----|-----|-----|-----|-----|----|-------|-----|
| Rhode Island..... | 24 | 60 | 26 | 11 | 18 | 38 | 425 | 155 |
| South Carolina..... | 69 | 310 | 63 | 38 | 48 | 53 | 1,754 | 85 |
| South Dakota..... | 13 | 104 | 26 | 15 | 15 | 22 | 1,034 | 86 |
| Tennessee..... | 130 | 412 | 90 | 45 | 56 | 66 | 2,367 | 176 |
| Texas..... | 200 | 828 | 209 | 116 | 110 | 90 | 6,784 | 799 |
| Utah..... | 18 | 102 | 26 | 10 | 15 | 23 | 1,106 | 565 |
| Vermont..... | 16 | 55 | 26 | 9 | 14 | 21 | 950 | |
| Virginia..... | 114 | 353 | 88 | 48 | 34 | 61 | 3,277 | 119 |
| Washington..... | 31 | 210 | 57 | 29 | 34 | 41 | 2,697 | 429 |
| West Virginia..... | 52 | 223 | 45 | 31 | 37 | 37 | 1,784 | 44 |
| Wisconsin..... | 7 | 267 | 80 | 50 | 25 | 65 | 1,889 | 730 |
| Wyoming..... | 2 | 55 | 25 | 7 | 11 | 16 | 434 | 83 |
| Alaska ⁴ | | 59 | 25 | 7 | 13 | 16 | 16 | |
| Hawaii..... | 37 | 53 | 26 | 7 | 15 | 25 | 471 | |
| Puerto Rico..... | 24 | 7 | 26 | 7 | 15 | 25 | 471 | |
| Virgin Islands..... | 228 | 315 | 61 | 40 | 45 | 20 | 1,624 | |
| Guam..... | 8 | 8 | 26 | 1 | 2 | 4 | | |
| | 12 | 10 | 21 | | 2 | | | |

¹ Additional amounts of \$1,854 were paid under Title I, P. L. 911, for the public health traineeship program and of \$232 under P. L. 159 for air pollution training and demonstration projects.

² Includes \$440 in services and supplies furnished in lieu of cash.

³ Excludes \$249 paid under P. L. 660 to Water Pollution Interstate Agencies; New England Interstate Water Pollution Control Commission, \$14; Interstate Commission on the Delaware River Basin, \$17; Interstate Commission on the Potomac River Basin, \$28; Interstate Sanitation Commission, \$47; Ohio River Valley Water Sanitation Commission, \$113.

⁴ Additional payments of \$638 and \$1,000 were made to Alaska for disease and sanitation investigation and control activities and the mental health programs, respectively.

Office of Education

Education in 1958

IN 1958 AMERICAN EDUCATION entered one of its most challenging years. It was under fire at home for many reasons. The criticism was intensified by the Nation's shortage of trained manpower and by the challenge of Soviet progress in education.

Some of the criticisms were well founded; some were not. However, American educators and school administrators have no desire merely to answer the criticisms and consider the matter settled. Instead they are examining the charges, reappraising their school systems, and earnestly seeking sources of strength, for they realize that informed criticism indicates health, vigor, and interest; that much of the current criticism can be channeled into creative action.

Some critics of education have identified a single cause and an easy cure of the problems in education, but unfortunately there is no simple or easy solution to them. They vary from school district to school district and from State to State, and in size and degree of complexity. But one condition contributes to a solution—the recognition that problems exist, that they are serious, that schools satisfactory to the 19th century are not suitable for the 20th, and that something should be done. Furthermore educators and laymen generally agree on the basic aims of education, that it is a means of “making of men, free, conscious, self-reliant, fully developed men” who “by education learn to do by choice what other men do by constraint of fear.” They agree, in general, on the specific objectives of the schools. Through the recent White House Conference on Education citizens from all sections of the country reaffirmed their belief in the aims of education and agreed on the services they expect from schools.

Apparently, then, our educational objectives have not changed; they are based on the values fundamental in a democracy, and our values have not changed, but because the schools must answer the needs of society for educated men and women, they must change as society changes.

The Office of Education

ONE OF THE FUNCTIONS of the Office of Education is to investigate and to make known its findings on the status of education in the United States and to recommend measures for improvement. For that reason this report discusses the conditions, developments, and needs of education in 1958 as they were revealed by Office surveys, conferences which the Office sponsored or in which staff members participated, reports from State departments of education, national associations, and other groups, and from other sources. It also briefly describes other Office functions and reports on its administration of programs supported by Federal funds.

In 1958 the Office had approximately 650 employees, and its budget for administration and operation was \$4,700,000. It administered the following federally supported programs: Vocational education, \$40,888,412; higher education, \$5,051,000; school assistance to federally affected areas, \$225,650,000; co-operative research, \$2,300,000; and library services, \$5,000,000.

The Office is staffed with specialists in subject-matter fields, school and college administration, housing, special services, and the various phases of school operation. These specialists were educated in public and private colleges, universities, teachers colleges, and professional schools, and have had many years of experience as teachers and administrators in schools and colleges throughout the country. Their primary interest is helping States and local communities improve their schools.

As fiscal year 1958 came to a close the Office was reappraising its activities in the light of the responsibility education bears for the Nation's welfare, of the Nation's need for educated citizens, and of the citizens even greater need for education.

There is reason for public confidence, for there is evidence that our basic school system is strong, that it is suited to the needs of the country and flexible enough to respond to changing demands, and that our best schools are surpassed by none. On the basis of sound

evidence, the schools, working under severe limitations, did a good job in 1958. A few facts to support the statement follow:

► For a total expenditure of \$20 billion, or 4.5 percent of the gross national product of \$440.3 billion, they provided school-housing, equipment, and instruction for 43 million persons.

► School and college enrollments increased for the 13th consecutive year. The 1957-58 enrollment totaled 43,135,000 persons, or about 1 of every 4 in the Nation's population, an all-time peak and an increase of 1,769,000 over 1956-57 (See table 1). Of the total U. S. population of persons between 6 and 17 years old in October 1957, 96.5 percent were enrolled in school.

► Public and nonpublic elementary schools—kindergarten through grade 8—enrolled 30,670,000 children, an increase of 959,000; secondary schools—grades 9 through 12—enrolled 8,424,000, an increase of 604,000; colleges and universities, 3,450,000, an increase of 206,000; and other types of schools, 591,000, the same number as last year. Enrollment increase in the secondary grades was 7.7 percent and in the elementary grades 3.2 percent.

► 94.4 percent of all children in the 5- to 13-year-old group were in school, and 89.5 percent of those in the 14- to 17-year-old group were in school as compared to 79.3 percent 10 years ago. 5,408,000 students were estimated to be in private elementary and secondary schools, an increase of 5.4 percent over last year.

► In urban areas 97 percent of the 6- to 17-year-old group were enrolled in October 1957 as compared with 96 percent in rural nonfarm areas and 95 percent in rural farm areas.

► In the 30 years since 1927-28 the total enrollment in public secondary schools has risen by 75.8 percent. In the same period, enrollments in general science, biology, chemistry, physics, and the basic mathematics courses have risen 74 percent.

► Degree-granting colleges conferred a total of 411,000 degrees in 1956-57, 8.3 percent more than in 1955-56. Of the total conferred, 82.8 percent were bachelor's degrees, 15.1 were master's, and 2.1 were doctor's.

► The total number of teachers in U. S. public and non-public elementary and secondary schools at the beginning of the 1957-58 school year was approximately 1,412,000, an increase of 69,900 over 1956-57.

There are also reasons for action; available evidence shows that our poorer schools justify much of the current criticism and that all schools must continuously improve. A few facts indicate the need:

► To equalize educational opportunity. The length of the school term in one State is 165.2 days, in another, 186.9 days; in one State the average current expenditure per pupil is \$158, in another \$482; in one State the average salary of a teacher is \$2,525 and in another, \$5,750; in one State 88.7 percent of the elementary teachers do not have a degree, in another only 1.7 percent.

► To provide classrooms for 1.9 million children housed in crowded rooms or makeshift quarters. It is estimated that children on double shifts—the thousands who attend school only 4 hours a day—lose nearly 2 months of schooling during the year.

► To reorganize the school districts too small for efficient and economical operation and to offer an adequate curriculum. Nearly 35,000 of the 104,500 public elementary schools are still one-teacher schools.

► To improve education in rural districts. An Office study of 101 most rural counties showed striking variation; in one county the average annual salary of the instructional staff was \$1,676 and in another, \$4,089; in one county the annual cost per pupil in average daily attendance was \$110 and in another, \$825.

To erase the shortage of qualified teachers which was 135,000 or 14,300 more than in 1956-57. The average beginning teacher's salary was \$3,600 in 1958, about \$1,000 less than a beginner of similar training earns in industry.

► To strengthen the high school curriculum, particularly in small high schools. In the fall of 1956, 36 percent of the public high schools did not offer chemistry; 43 percent did not offer physics; 19 percent did not offer plane geometry. (These were small high schools and enrolled only about 5 percent of all high school seniors in the country.)

These facts indicate that our schools are good, that there is reason for confidence, but that there is no reason and no room for complacency. There are important reasons for action, and there were strong indications that action was being taken or planned. Magazines, newspapers, and radio and television stations devoted increased space and time to education; the U. S. Commissioner was invited to report on the status of education on a nationwide TV broadcasting system; State legislatures, alumni associations, professional organizations, groups of individuals, and others searched for means of improving their schools. Recognizing the need for immediate improvement, the Administration submitted to the Congress a number of specific proposals for Federal aid to education.

Financing Educational Services

A major problem confronting the systems of public schools over the Nation is that of securing funds in sufficient amounts to enable boards of education to finance the kind of program the public wants. This total problem is usually considered in terms of specific possibilities of improving the financing of education in the States. Some of the possible improvements are identified in the following paragraphs.

Property tax improvement.—Unreasonably low and inequitable valuations of property make the general property tax less effective than it might be as a source of funds for schools. State departments of taxation are adopting plans to assist assessors in using good assessment practices and in assessing property at an equal rate throughout the State.

State distribution formulas.—State funds are more effective in raising the unacceptably low expenditure levels of the less wealthy school districts when distributed as equalizing aids. This means that a sub-

stantial portion of the State funds for education should be allocated to districts as equalizing funds.

Educational finance can be greatly improved through the reconsideration of State distribution formulas and through the adoption of procedures that will help to raise the expenditure levels in the less wealthy school districts.

Increased State support.—Suburban school districts in which thousands of new homes have been built in recent years are having increasing difficulties in financing school programs. Usually, these residential communities rely entirely upon taxes on homes for local school support whereas other communities having establishments of business and industry in addition to homes have a broader tax base for local school revenue. These suburban residential communities are unable to secure tax revenue from business and industry in which their people are employed except as these are taxed by the State and the State funds redistributed to local school districts in proportion to measures of school need. Problems of financing the numerous suburban residential communities indicate that a greater proportion of the revenues for education must be provided through State support funds to reduce the inequalities in the programs of education.

Adoption of local nonproperty taxes.—As one solution to the difficulty encountered in approving larger budgets in local school districts, States are extending authority to levy local nonproperty taxes for school purposes. In response, hundreds of boards of education are considering and levying additional local nonproperty taxes such as sales taxes, payroll taxes, per capita taxes, and other local taxes on amusements, automobiles, cigarettes, hotel rooms, and deed transfers, as a means of securing additional revenues for schools.

State assistance for school construction.—In 1950, only 19 States were providing assistance to local school districts for the financing of school construction, and these States were appropriating relatively small amounts compared to the capital outlay funds provided from local district sources. By 1958, the number providing this kind of assistance had increased to 35 States and 3 outlying parts of the United States. They are allotting to local school districts a total of 59 different funds for assistance in financing school facilities, and these funds are supplying about 9 percent of the total for school facilities.

Federal funds for education.—The relatively small percentage of school support funds from Federal taxation revenues continues as a major subject discussed in financing education. Questions on this point deserve careful consideration. Does the Federal Government have an interest and obligation to raise the school support levels in States financially unable to support schools at a level acceptable to the people of the Nation? Has the total tax structure—local, State,

and Federal—shifted to such an extent that the educational program in most of the States will not be supported at levels acceptable to the people unless the schools derive revenues in reasonable proportions from the tax sources available?

Since the States have primary responsibility for public elementary and secondary schools, they provide funds and authorize local school districts to use local tax funds for public schools. For 1957-58, it is estimated that the Federal Government provided 4 percent, the States 41 percent, and local districts 55 percent of the total revenue for these public schools.

In an effort to help States and local school districts with their school finance problems, the Office disseminates information through its publications. One publication, entitled *School Finance and School Business Management*, provides an analysis of the school finance responsibilities and services in State departments of education. It should be useful in determining State and local policies on school finance and in reconsidering service rendered by the State educational agencies in school finance and school business management.

Another publication, *Federal Funds for Education*, presents an analysis of 137 Federal programs in education provided by the various Federal departments, agencies, and offices. For these services in education, the Federal offices reported expenditures amounting to almost \$2 billion for the 1956-57 school year. About 25 percent of these funds are administered by the Department of Health, Education, and Welfare and approximately 8 of this 25 percent by the Office.

State School Administration

The vast growth of public education has made it necessary for States to reorganize and revitalize their machinery for administering public educational programs. The outstanding development in this area in recent years has been the rapid growth of State departments of education, both in size and in professional stature. These departments are staffed by highly trained specialists and technicians and are fast gaining recognition as State centers of educational leadership.

The relationship between the Office and State departments has always been one of mutual assistance, and as problems and needs in education have increased, the cooperative relationship between the Office and State departments has become stronger. Much Office research and study are directed toward solving the problems State departments consider serious. In recent years the Office has made available basic information on the structure and organization of State departments, State boards of education, and on the various responsibilities of State departments of education. In fiscal 1958 the Office continued to develop and distribute information on State school

administration and to provide advisory services to State departments of education and other State agencies. A few Office services are summarized below.

A larger share of the American youth are being educated in nonpublic elementary and secondary schools. Nonpublic schools make reports to their private educational associations but very few to public education offices.

Recognizing the need for more information on the nonpublic school, the Office conducted, in cooperation with the Study Commission of the Council of Chief State School Officers, a major study of State legislative practices relating to these institutions and published the findings under the title, *The State and Nonpublic Schools*. This study, the first of its kind ever made by the Office, describes the legal framework under which nonpublic schools are enabled to enjoy desirable freedom in their operation and are encouraged to provide educational programs in the public interest.

In 1958 substantial gains were made in establishing and maintaining a sound basis for comparable educational information among States and among local school districts. By the year's end, a number of States had incorporated into their accounting systems the standard classifications of the cooperatively developed handbook, *Financial Accounting for Local and State School Systems*, published by the Office in 1957. Several more had accepted the handbook's recommendations and were putting them into practice.

The Cooperative Project on Property Accounting for Local and State School Systems, begun in 1957, was advanced toward successful completion. Aimed at developing a property accounting handbook that will provide a firm basis for presenting information about school land, buildings, and equipment, the project moved through a series of national and regional conferences which utilized a great reservoir of experience from people in all regions of the country.

Another facet of the problem of establishing comparable educational data is the internal accounting for school activity money within individual schools—for example, money for athletics and school clubs. Millions of dollars are involved each year in school activity funds, but the lack of comparable data makes it impossible to obtain a clear picture of what is happening. The Office is therefore developing, in cooperation with a number of national educational associations, a handbook to standardize classifications and terminology used in accounting for school activity money and to provide guidelines to the handling of such money.

School Building

The people of the United States are spending billions of dollars on school construction, and Office records indicate that they are getting

good value for their school building dollar. During the last 20 years costs of building materials and labor have increased 200 percent or more, but the cost of a classroom with related facilities has increased 150 percent.

At the beginning of the school year 1956-57, there were 1,100,000 public elementary and secondary instruction rooms available in the continental United States. During the year, 68,800 new instruction rooms with related facilities were completed; and 16,300 were abandoned because they had become obsolete or were not needed because of school district reorganization. In 1957-58 pupils were housed in 1,152,500 instruction rooms, which was 52,500 more than the number available in 1956-57. State departments of education reported that an additional 142,300 instruction rooms were needed, 64,700 to accommodate 1.9 million pupils enrolled in excess of normal capacity and 77,600 to replace rooms in unsatisfactory condition. A total of 70,500 classrooms in public schools were scheduled for completion during the school year.

The 1.9 million children in excess of normal capacity were on half-day schedules, in overcrowded classrooms, makeshift facilities, or in rented quarters which were not designed for school work. Although the rate of school construction increased in 1958, the country still has a long way to go to remove the backlog, accommodate the increasing school enrollment, and take care of normal annual replacements. Since many groups—the general public, the Congress, the construction industry, economic analysts, and educators generally—need precise information, the Office has taken concrete steps to develop several new series of statistics for analyzing the progress of school construction from the fiscal standpoint.

Data on bond sales for public elementary-secondary construction are being tabulated from standard statistical sources and analyzed each month to show the amount sold and the interest rates charged for each State. Data on school bond elections providing insight into an earlier stage of progress in financing school construction are being received from the Investment Bankers Association each month. Projections of the cost of public school construction in the years ahead have been made and are revised periodically as new data become available.

In fiscal 1958 Office specialists assisted States and local districts in setting up criteria and procedures for school-plant maintenance and operation and periodic programs of renovation, rehabilitation, remodeling, and modernization. Since planning, construction, equipping, and management of the modern school plant require knowledge of many phases of building technology, including principles of design, construction, materials, management, and care, Office spe-

cialists cooperated with technological organizations in a number of studies.

Staff specialists also consulted with market analysts on school equipment, with State departments of education on the development of State guides to plant administration and on standards of performance of local districts, and with the Council of Chief State School Officers on developing a program of State school-plant services. They assisted State departments and local school systems in developing patterns of procedure in local school construction and essential long-range programs of school-plant planning and advised State and local officials on adaptation of housing to district reorganization and curricular changes.

In their research and studies specialists gave specific attention to the functional planning of school plants and to the effects of curriculum, instructional methods, and community programs on functional planning of school facilities, and to administrative facilities in school buildings and the selection of school sites. They made studies of elementary school-plant planning in cooperation with the National Council on Schoolhouse Construction.

School District Organization

The quality of a public school program depends in large measure on the size of the local school district, which is the area served by a single system of local school administration, usually a single board of education. The widespread reexamination of the public schools has stimulated efforts to improve local district organization. The fundamental question back of reorganization is the ability of districts to provide modern educational programs. Can a small school district, usually defined as one enrolling fewer than 300 students, efficiently and economically provide a good school program? A small school district has high per pupil costs and does not have a broad enough tax base to provide the school revenue it needs to employ a professionally trained administrator, to offer a varied curriculum, to build and equip science laboratories and a good library; to provide special services; or to employ and hold good teachers.

Establishment of soundly organized local districts for administering schools has long been a major problem in education. In the past 100 years some redistricting has been done in every State, but it has increased rapidly in recent years. Since 1945 the number of school districts has been cut drastically, from 103,000 in 1945-46 to about 54,000 in 1956-57, according to a Bureau of Census count.

Responsibility for improving district organization rests with the States, for within constitutional limits a State legislature has complete power over district organization. However, most legislatures

have not reorganized districts by legislative decree but have enacted laws prescribing procedures by which local people could take action. Since many laws have proved ineffective in reorganization, a movement has been underway for a number of years to make permissive-type reorganization programs more effective.

To aid State and local school officials, laymen, and local planning groups, in 1958 the Office analyzed policies and procedures contributing to or hindering success of programs carried on by States and prepared and published a manual of local planning techniques and procedures and a summary of State policies and procedures.

School Boards

Within the last few years the responsibilities of local boards of education have become heavy. As a result, the year 1958 brought an upsurge of interest in the work of local boards of education and in efforts to assist them in functioning more effectively. State school board associations have been established in every State and in some States they have 100 percent membership. State boards are becoming increasingly active; they are offering inservice training programs; publishing manuals, handbooks, periodicals; organizing workshops; maintaining close relationship with State legislatures; and providing for visits between boards. Their operating budgets have been increased. Throughout the year the Office participated in the movement; staff members prepared and published an analysis of school board association periodicals and publications, and began work on an analysis of written statements of policies developed by boards.

With a teacher shortage of major proportions, the need for sound personnel administrative practices and procedures continued to be important. Office specialists consulted with school officials on this aspect of school administration and began work on identifying specific personnel problems. After preliminary investigations they initiated a study of personnel handbooks and similar materials developed by local school systems and the organizational patterns for personnel administration.

Office specialists analyzed a large number of surveys of school systems to determine what standards for positions should be recommended for further testing and evaluation and began a study of State statutory provisions and factors in State school financing relating to positions and services.

Elementary Education

The reawakening of interest in education and the determination of the people to shape their schools to meet the changing times and needs led elementary schools in 1958 to reassess their strengths and weak-

nesses and to take a fresh look at some of their time-honored practices. The following paragraphs review briefly some of the developments and comment on current practices and needs in elementary education.

ADMINISTRATIVE PRACTICE

In the mounting variety of patterns and rapid growth of the size and numbers of elementary schools in recent years, certain established procedures and respected beliefs may have lost their original values. To this question, elementary education at large addressed itself during the past year.

Among items of growing concern and increasing investigation were the following: Entrance age to school; class size and teacher-pupil ratio; grouping policies as they relate to administrative management and to instructional programs; pupil promotional policies; reporting pupils' progress to parents; establishing bases for individual and group educational standards; effective educational guidance to pupils; provisions for meeting even wider ranges of individual pupil differences; increasing demands on the classroom teachers; effects of the shortage of qualified teachers and of inadequate school accommodations; provisions for improving the efficiency of the experienced teachers; and the proper role of the school administrator as an educational leader.

CURRICULUM

School staff members responsible for leadership in determining elementary school curriculum in the various school systems keep constantly in mind (1) the objectives of education in the United States, (2) emerging knowledge as it throws light on human growth and learning, and (3) the changing needs of our society.

Last year, demands were made on elementary schools, as they were on others, for "more science," "more mathematics," and some innovations were recommended without convincing proof of their value. The schools, with an eye on the continuing and basic needs of all children, attempted to meet these special demands. In many localities, curriculums were revised, special activities were organized, and experimentation was widespread.

Science in the elementary school, recognized as important by many educators over the past 25 years, was emphasized by schools, communities, and national organizations during 1958. Many schools in which science teaching had been more or less left to chance appointed curriculum committees to develop a science program. In elementary and high schools curriculum planners joined in urging that such programs be coordinated from kindergarten through the 12th grade. National organizations such as the National Science Teachers Association, the National Association for Research in Science Teaching, and the American Association for the Advancement of Science

gave more time during their national meetings, more space in their publications, and more staff time to stimulating programs in elementary schools than in the past. College science and education faculties in increasing numbers discussed the relation of science in the elementary school to the future supply of scientists and engineers.

Recognizing the need for better understanding of other countries of the world, educators in elementary schools increased their efforts to encourage better teaching and production of better materials for use in the schools.

Elementary schools in locations favorable to the development of fluency in a foreign language have traditionally taken advantage of their resources. Spanish, for example, has been taught in many southwestern schools and in Florida; French in Louisiana and along the Canadian border in the northeast; German, Italian, and other languages according to the nationality predominance in the population and the availability of competent teachers. Recently, increased efforts have been made to locate and use resources in communities and colleges to teach children a second language.

EDUCATION OF THE GIFTED OR TALENTED

In the elementary schools improvement of education of the gifted or talented has taken three main directions: Grouping of gifted or talented, completely or partly; acceleration; enrichment in regular classrooms. Grouping of the more able children into special schools or special classes for only a part of the school day, ranging from an hour to a half day, has been tried in few localities.

The plan of accelerating gifted children is also used in some communities, usually on a basis of individual selection, with careful guidance to insure that the child selected is not losing out in an important area of development. The method generally in use is that of enrichment in regular classrooms, with materials, methods, and experiences adapted to the abilities, interests, and needs of the learner. Serious handicaps to the success of this plan are, in many localities, the large numbers of students assigned to teachers, shortages of materials to meet variations in ability, and the reduced school day.

EDUCATION IN GRADES 4-5-6

In response to repeated requests for information about the education of children in grades 4-6, the Office in 1958 completed a study of education in these grades. The report of the study interprets research in the characteristics and needs of 9- to 12-year-old children; summarizes opinions expressed in 40 regional conferences involving, in all, approximately 1,300 supervisors, principals, and teachers who deal with children of these ages in 415 rural and urban school systems in 35 States and the District of Columbia; and analyzes observations in these

grades in 68 of the systems. It also describes content of the curriculum and methods used in guiding children and in providing them with challenging experiences. Although the report shows that a variety of experiences are being used, it also shows considerable uniformity in content and in methods and that many schools are experimenting with new methods and in the use of newer materials and aids to teaching.

The report points out situations that educators across the country have repeatedly brought to attention—situations in contemporary life that seem to place too great responsibility upon children of these ages. Some of the situations result from parents being absent from the home; some from pressures of immature boy-girl dating; others from too great pressure on them to take part in too many in-school or out-of-school activities; or in some communities from scarcity of desirable activities. The study reveals how some schools seek home-school-community cooperation in dealing with the needs and problems of children.

KINDERGARTENS

The growth of kindergartens as a beginning unit of the elementary school shows marked progress. In a decade public and private kindergarten enrollments had increased by 121 percent; now, 46 percent of the 5-year-olds are in kindergarten in contrast to 28 percent in 1947. Children who live in cities of 25,000 and under have opportunities which only children in large cities had a little more than a decade ago.

EXCEPTIONAL CHILDREN

Even though States and local school systems still have much to do before programs for exceptional children will reach all of the 4 million who need them, the year 1958 saw major progress toward (1) extending school programs to serve more exceptional children, (2) acquiring more knowledge about exceptional children and the kind of instruction they need, (3) securing more and better qualified persons to teach and to give leadership in State and local school systems and in colleges and universities preparing teachers of exceptional children. Evidence of progress was seen in mounting school enrollments in special education, studies of the rural problem, multistate activities, and renewed efforts to coordinate the work of national organizations individually concerned with one of the various types of exceptional children. State education agencies, many of which had increased resources in funds and personnel, played a major leadership role in these developments.

The extent and direction of this growth cannot be determined until the results of the current statistical survey of special education for exceptional children become available. The sharpest gains were undoubtedly made in the urban areas.

Preliminary reports indicate that, of all the handicapped, the mentally retarded made the largest gain in school enrollments. It is not likely that such rapid advances would have been made without the organized support of parent and other lay groups at the local, State, and national levels, particularly as these groups have been encouraged by the National Association for Retarded Children.

The lack of scientific knowledge about the various aspects of education of exceptional children has been generally recognized. Some information has been accumulated through the efforts of individual schools, clinics, and research centers in universities and large school systems, but the progress of valuable studies has often been hampered by lack of funds to carry forward the research needed. The availability of funds for research has marked a turning point.

Some progress was made in 1958 in securing adequate numbers of qualified special educators. The annual directory of special education staffs in State departments of education showed by far the greatest annual increase in such personnel since 1950, with the largest increase in supervisors of education for mentally retarded. Even in the face of a shortage of teachers much attention was being given to improvement of professional preparation of teachers for handicapped and gifted children. On this matter the Office published two more reports from its nationwide collaborative study.

Secondary Education

The discussion, study, and demand for more and better education in 1958 brought with them a growing realization of the importance of secondary schools to the Nation: that the strength of American life depends heavily on the strength of the Nation's secondary schools and that there is a growing relationship between education and national security, domestic and foreign policy.

Although there were no sweeping reforms in curriculums and methods, many secondary schools did improve their programs through additions and the refinement of courses to meet more nearly the abilities, needs, and interests of pupils. Perhaps one of the most significant developments was the emphasis on programs and courses designed to challenge the capacities of talented pupils. This concern was reflected in the Office activities, State educational agencies, and professional organizations.

In addition, numerous projects were concerned with reappraisal of course content and methods in science (particularly physics), mathematics, and modern foreign languages. Secondary school teachers, college and university professors, citizen groups, and Office specialists participated in many of these projects. Office specialists furnished background information, national statistics, and professional

advice. As the year ended, proposals of these groups were being applied and evaluated in selected secondary schools.

Because of the new significance attached to foreign language study, the Office made an analysis of foreign language laboratories. Data for 1957-58 revealed that although 240 colleges had language laboratories only 60 high schools had electronic equipment for drill in hearing and speaking the foreign languages offered. Schools which have used electronic equipment for developing aural-oral skills reported enthusiastically on it. A publication of the Office, *Modern Foreign Languages in the High School*, emphasized the importance of (1) increased offerings in modern languages in the high school, (2) longer sequences of study, and (3) greater emphasis on effective use of the foreign language.

Problems, Needs, and Trends in Science and Mathematics

In the past year attention was focused on the improvement of science and mathematics in the public schools and particularly, on the most critical problems in those fields. Brief background information will perhaps point up the needs and clarify measures introduced to resolve some of the problems.

CRITICAL PROBLEM AREAS AND NEEDS

The accelerated pace at which we are moving toward a culture that is dominated by science and technology has placed new demands on the teaching of science and mathematics. To maintain our place of eminence in basic scientific research will require the training of an increasing number of scientists. At the same time the larger group of nonspecialized citizens will need more and better training in science and mathematics to be able to live effectively in the space age.

Programs in science and mathematics education are closely related both to scientific manpower and to the available supply of teachers of these subjects. Recent statistics show that despite the great need for science and mathematics teachers fully one-third of those college graduates who are prepared to teach science and mathematics are lost to the teaching profession because the public schools are outbid for the services of the best qualified members of this group.

We are failing to realize the fullest potential of a considerable portion of the academically talented youth. Two factors are basic to this problem: (1) The failure of many able young people to pursue their education beyond the high school and (2) the failure of the schools to identify academic talent at an early age and then make the best possible provision for its development. Solution of this problem

is vitally necessary to our future scientific and technological well being and our national defense.

One factor in the scientific shortage is the lack of effective guidance counseling. The school guidance counselor is a key person in a student's choice of his school program and his career, yet fewer than 10 percent of the guidance counselors in the public schools have backgrounds of preparation in science and mathematics. The early identification through testing and the proper guidance of young people with interest and ability in science and mathematics is therefore a problem of first priority facing educators.

Both State and local departments of education are greatly understaffed with consultants in science and mathematics. Fewer than ten State departments of education employ specialists in these fields, although most States provide at least one supervisor and sometimes more for music, art, and other subjects. Long-range improvement is impossible unless personnel are provided who can assume the initiative and responsibility for continuing programs.

Most curriculums in science and mathematics have not kept pace with the rapid advances in these fields. There is a vital need for revising and updating both the materials and the methods of instruction in science and mathematics.

Instruction in science and mathematics requires specialized facilities and equipment, and teachers of these subjects must have the best of teaching aids, including textbooks, laboratory manuals, and audio-visual materials. In many places where science and mathematics are taught facilities and equipment are in critical shortage. These conditions will continue to be a bottleneck to any long-range improvement of teaching until they are remedied on a nationwide scale.

SURVEY OF SCIENCE AND MATHEMATICS MAJORS

To provide early information on the probable supply of professionally trained scientific manpower, the Office, in consultation with the National Science Foundation, initiated a nationwide survey of junior year men and women majoring in science and mathematics in colleges and universities. The major fields listed on the survey questionnaire correspond to the major fields used in the Office annual survey of earned degrees. As the junior-year survey is repeated, annually or biennially, the data will provide the basis for future projections of number of bachelor's degrees, information on changes and trends in science and mathematics majors, and on "dropout rates" in the various scientific fields.

The first reports of the survey showed that in November 1957 approximately 50,500 junior-year students were majoring in science or mathematics, or 12.9 percent of all junior-year students. On the basis

of the survey, it is estimated that between 40,000 and 45,000 persons will earn bachelor's degrees in science and mathematics in the 1958-59 school year as compared to 33,800 in 1956-57.

TRENDS IN TEACHING

There is very little available information on the national level dealing with the general status of science and mathematics teaching. A few studies on limited aspects of the problems have been made by certain States, but the most recent nationwide data are now nearly 10 years old. The current interest in improving education in these subjects has directed attention to the need for information on the present status of science and mathematics teaching. To provide such information, the Office, during the past year, planned a series of comprehensive studies on the status of science and mathematics in public high schools, in public junior high schools, in public elementary schools, and in teacher education institutions.

Before the year ended the first of these studies was in progress. Data were obtained from school principals and from teachers of science and mathematics in a representative sample population of the high schools. The questionnaires used in the study covered most of the major problems in each field.

In 1954 the Office conducted a study which provided useful information on offerings and enrollments in science and mathematics. The study was repeated in 1956, and a small but encouraging improvement was found in enrollments, both in science and mathematics.

The rapid advances in science and mathematics over the last few years have created a need for updating the training of high school teachers of these subjects. A number of associations and agencies are sponsoring or conducting programs to meet this need. The National Science Foundation has for the past few years made large grants of money to colleges and universities for conducting summer and academic year institutes for high school and college teachers of science and mathematics. This agency is now planning an expanded program which may offer institutes for teachers in the junior high schools and for elementary school supervisors. The American Association for the Advancement of Science, in cooperation with the American Association of Colleges of Teacher Education, is conducting a program for the improvement of teacher education in science and mathematics. The Office maintains close cooperation with such projects.

During the past year the Office of Education, in cooperation with representative scientific, mathematical, and educational organizations, held a national conference on the curriculum in high school science and mathematics. The report of this conference sets forth guidelines for improving the teaching of science and mathematics.

The Office gave considerable attention last year to identifying, guiding, and providing for the academically talented student in science and mathematics. Specialists in these subjects participated in a conference held by the National Education Association on problems of the talented student, and the Office published a study on the problem as it relates to science and mathematics.

Over the country there appears to be a trend toward developing and providing better facilities, equipment, and teaching aids in science and mathematics. In 1958 both the National Education Association and the Office of Education conducted research studies related to facilities and equipment. In addition to the two national programs several experiments are being conducted by other groups in teaching science and mathematics by television.

In response to the need for focusing research on improvement in teaching mathematics and science, the Office published a bulletin in each field which analyzes and interprets the current research. In addition, Office specialists in these subjects worked with other organizations in defining the unresolved problems and in discussing research studies needed to solve them.

Retention of Students

The Department of Labor predicts that by 1965 the United States will probably need 45,000 more doctors, 75,000 more college-trained nurses, nearly 500,000 more elementary and high school teachers and 120,000 more college teachers; and that skilled trades will need 250,000 more trained workers each year just to maintain the present skilled force. Our schools and colleges must prepare persons to fill these needs, yet each year millions of young boys and girls drop out of high school, and others who complete high school do not go on to college.

A number of recent studies show the seriousness of the education problem. One study made by the Educational Testing Service, Princeton, N. J., for the National Science Foundation, found that between 60,000 and 100,000 of the highly able high school graduates with aptitude and interest in college do not go because of financial reasons but that a group of the same size and ability do not go because they lack interest and motivation. That means that one-third of the top 30 percent of high school graduates, between 120,000 and 200,000, do not continue their education—a serious waste of intellectual resources of the Nation and a serious loss to the students who are shutting the door to occupational opportunity and the rewards of intellectual achievement. In addition to the loss of superior students who graduate from high school but do not go on to college, considerable numbers of students of high ability drop out of high school before graduation.

A nationwide study conducted by the Office, covering the period 1950-54, indicated that during this 4-year period about 300,000 high

school graduates who were in the top 30 percent of their classes did not go on to college. An additional 240,000, also in the top 30 percent, attended only night school or other irregular college classes. Furthermore about 1 in 4 students who enter college drop out by the end of the first year. Altogether about 6 out of 10 who enter college are graduated. The Office study found that more than one-fifth of those who dropped out were in the top 20 percent of their high school graduating classes.

Since the high schools must prepare students for college and since the greatest loss of students occurs at the 10th or 11th grade level, they must make the major effort to hold students, particularly the academically talented. On the average from 15 to 20 percent of the high school students may be classified as academically talented. Studies, research, and surveys have found that some measures can reduce such loss. They are (1) improved testing of student aptitudes and use of cumulative records so that potential ability can be identified at an early stage of education; (2) skilled counseling and guidance to encourage students to stay in high school, to prepare for college, to select academic courses suited to their talents; (3) united community effort to get students to return to school; and (4) scholarships.

GUIDANCE AND COUNSELING

Although the teacher still has the primary responsibility for helping pupils attain their maximum development she cannot be expected to provide all the services required in modern education. And even if teachers had the time to provide all necessary services, many services require technical training which some teachers have not had, for example, administering and interpreting standardized tests. To aid the teachers and to provide for students, more and more schools are employing guidance counselors.

Guidance counselors are specialists who identify individual differences, give tests to determine students' abilities, aptitudes, and talents and to measure their progress; advise them on choice of courses and vocations; help them solve their mental, physical, or emotional problems; and estimate the educational needs of the community and methods of meeting them. Guidance counselors work closely with parents, teachers, school administrators, and local recreation and welfare officials.

Guidance specialists in a school system, working closely with the teacher can provide information essential to making adaptations, such as special classes for the gifted or retarded, special equipment and instructional materials, and special group procedures in the classroom. In other words the guidance counselor helps the teacher identify special needs and abilities, interpret them, and provide the kind of education needed to meet them. In the high school he helps the stu-

dent, in consultation with his parents, plan his educational program, high school, vocational, and college; informs him of occupational opportunities; and helps him make a satisfactory transition from school to work. School people in general agree that schools should have 1 counselor to every 300 students, but in the country as a whole we have the equivalent of about 12,000 full time counselors for 8½ million students or 1 to every 710.

Experience has shown that testing is valuable in guiding students into educational programs and careers suited to them and in measuring student abilities. A study by the Educational Testing Service found that even among the top 10 percent of high school graduates 1 out of every 5 picked on the basis of grades alone as having abilities in engineering did not live up to expectations in college, but that of the students selected on the basis of scholastic aptitude tests in combination with analyses of high school grades, only 1 out of 12 did not do as well as expected. Other studies support this finding.

Only 6 States require that public schools maintain cumulative records on their students. Yet millions of children change schools each year. During 1956, the last year for which a record is available, of the total population of 38,210,000 children between the ages of 5 and 17 years, more than 7,000,000 moved from one place to another.

In all States and Territories an official of the department of education is responsible for guidance services, for helping local schools improve their programs; 20 years ago only New York State had assigned a person to such work. The number of States that have established certification standards for guidance workers has increased by 25 percent in the past year, from 32 in 1956 to 40 in 1957. Most States require a State teaching license and a master's degree, or equivalent, in guidance training for certification.

The trend in the use of guidance counseling has been upward for several years, and there are indications that it will continue upward, for the increase in juvenile delinquency, in the number of working mothers, and in the complexity of life will progressively call for the employment of more people who understand children.

As a result of the increased interest the Office received many requests for educational and occupational information—on methods of improving counseling techniques, techniques of attacking the school-retention problem, on student personnel services in institutions of higher education, and on inservice and preservice education of teachers. In addition to responding to requests for service and consultation, the Office conducted a number of studies during the year, including studies of the retention of students in high schools in large cities, individual analysis in educational and vocational guidance, preparation of guidance and student personnel workers, effective

guidance practices in local schools, certification requirements for guidance workers, and the organizational pattern of student personnel programs. Specialists in guidance prepared and distributed pamphlets, circulars, and leaflets on occupational and educational information.

Audiovisual Aids to Education

Education is now benefiting from increased use of audiovisual aids, including films, radio and television, recordings, slides, pictures, charts, maps, and others. Research and experience have shown that such aids, particularly television and films, used by capable teachers as supplement to classroom instruction, are of value in making teaching more effective.

Educational television has many uses. It can be used effectively by administrators, local boards, and others to present their ideas to local communities and to gain community support for school programs. It can be used to improve classroom teaching, for even a few courses taught by master teachers and put on film can stimulate teachers by suggesting new methods and ideas. It can be used to give instruction to the homebound and to adults. And last, and perhaps more important, it can be used in the classroom.

Educational uses of both radio and television showed substantial gains in fiscal year 1958. Eight educational FM radio stations completed within the year brought the total on the air to 201, and the number of educational television stations on the air increased from 29 to 32, with 4 others nearing completion at the end of 1958. Moreover, most of these stations were operating maximum broadcast schedules.

Especially significant was the increasing emphasis on direct-teaching use of television. Over 600 credit courses—elementary and high school courses for in-school viewing and high school, college, and adult-education courses for home viewing—were broadcast on television in 1958, an increase of nearly 50 percent over 1957. More and more city school systems used air time made available to them by local commercial TV stations for broadcasting regular school subjects.

Research and experimentation in teaching by television are being directed, increasingly, towards methods of TV-teaching, instructional content, lesson format, and instructional organization. In all, 160 experiments were being made. Perhaps the most comprehensive project at the public school level is the Washington County, Maryland, Project at Hagerstown; it involves direct teaching of the four basic

subjects, plus music and art, at all grade levels, intermediate through high school, on a countywide basis, by closed-circuit television.

Even though there is widespread recognition that radio and television have added new dimensions to teaching and even though experience has shown that their value depends on the skill, imagination, and flexibility of the teacher, many teachers are not using such aids and students preparing to teach are not being taught to use them. Further research is needed on the application of the new techniques.

The Office cooperates with organizations and groups concerned with educational television, issues directories of university courses and school participation, publishes bibliographies and listings, and provides other services to applicants for educational channels, advises on organization and finance, and reviews the results of uses of educational television. It also maintains close contact with most of the groups conducting research and experiments, and staff members participate in workshops training teachers to use educational television. The Office called a National Conference on Educational Television, May 26, 27, and 28, 1958. Participants from the 51 national organizations represented pointed up new developments and trends and attempted to identify broad principles that might serve as guidelines to future developments in television.

As part of its program to strengthen State and local educational resources of audiovisual aids, the Office prepared a directory of 16mm film libraries, identifying 3,660 such loan and rental sources; prepared directories of key audiovisual staff members in the Federal and State Governments and in large city public libraries and school systems. Staff members continued work on studies of audiovisual education in State departments of education and in large city school systems; continued to provide services related to the audiovisual materials of the U. S. Government, including cataloging new films for Library of Congress cards, administering the Government's contract covering the sale of films, and sponsoring a seminar on the problems of governmental production and use of films.

Vocational Education

In fiscal 1958 a total of more than \$40 million in Federal funds was distributed to the States and Territories to aid vocational education of less than college grade in agriculture, home economics, trade and industry, the distributive occupations, the fishing trades and industry, and practical nurse education.

In 1958 enrollment in vocational classes exceeded 3.5 million, the largest number of students ever enrolled in vocational education. Of the total about half were in secondary schools, grades 9 to 12; the

others, adults who had left the full-time secondary school, were in part-time and evening classes.

Current social, economic, and industrial conditions focussed attention on vocational education in 1958. The changing characteristics of agriculture, the increasing industrialization of industry, and the increasing numbers of women in the labor force all led to new demands for programs and for expansion of existing programs in vocational education.

Programs of vocational education designed to prepare persons for useful employment in specific occupational fields require that the instructors have the abilities and skills of workers in the occupations. Securing such workers to serve as teachers becomes an acute problem because many of them have greater earning opportunity in their occupational field than in schools as teachers of vocational subjects.

There is a constant need to change the vocational curriculum of the schools to keep programs abreast of the times. The rapidity with which changes are being made is perhaps more pronounced than in any other decade. Since such changes make new demands on teachers and on colleges and universities, inservice training must be provided for employed teachers to help them make the adjustments needed.

Throughout the year the Office cooperated with vocational leaders in their efforts to provide efficient and effective programs. A few Office activities are summarized below.

After months of work with the States the revision of policies for the administration of vocational education was completed and the revised statements were published. *Administration of Vocational Education in Practical Nurse Training* was issued to assist States in developing practical nurse training programs under provisions of Public Law 911, 84th Congress. The National Advisory Committee on Practical Nurse Education, which held its first meeting in January, submitted a report to the U. S. Commissioner of Education making suggestions for the administration of the practical nurse education program.

Other studies included: A nationwide survey of farm mechanics teaching in vocational agriculture to determine the current status of such programs and the need for improvement; a status study of programs in vocational agriculture for young farmers, in cooperation with the American Vocational Association, to identify characteristics of successful programs; a review of unpublished theses in home economics to identify research techniques and findings of value to home economics education; a long-range cooperative research study of characteristics of prospective teachers as related to success in teaching home economics; a research report on the placements of cooperative part-time students in distributive education, in cooperation

with the Central Region Association of State Supervisors and Teacher Trainers of Distributive Education; a study of effective practices in both adult and cooperative distributive education programs in metropolitan areas; and a series of studies of cooperative students employed in hazardous occupations, in cooperation with the Bureau of Labor Standards, U. S. Department of Labor.

Adult Education

In response to the need, various groups throughout the country are sponsoring adult education programs, among them, public school systems, industry, labor unions, the Armed Forces, farm organizations, and civic associations. Most of the groups hold to at least one or more of the following purposes: To help the individual adult remedy the defects and fill gaps in his earlier schooling; to show him how to function effectively in a rapidly changing world; to help him understand and adjust to changes that take place in him as he grows older; and to develop in him the desire for continued self-improvement and self-fulfillment. In their efforts to provide interesting and informative programs, these groups are being encouraged and aided by public libraries, institutions of higher education, churches, radio and television systems, and Government agencies.

One of the most significant developments in recent years has been the growth of adult education programs in the public school systems. By statute and regulation many States specifically authorize the establishment of such programs, and in States where no specific statutory authority exists, public school districts are providing for the educational needs of adults. In every State some districts are conducting public school programs for adults. They are of five main types: (1) Americanization of aliens; (2) elementary grade classes; (3) high school grade classes; (4) general education classes; and (5) education and training in arts, crafts, and recreational skills. One or more of the five types are now provided for in the statutes and regulations of 47 States.

Public school classes for adults are generally financed by a combination of ways—by State aid, authorized if not appropriated; by local school funds but no State aid; by other public funds or private funds but no school funds, State or local; and by State and Federal funds made available for vocational education. A majority of the States require that teachers of adult classes be certified by the State, and most of them require that teachers who give courses for credit have a regular teacher certificate.

There is widespread evidence that in 1958 vocational education, college extension, and many other groups improved their programs,

increased enrollments, and, in general, made better provisions for meeting the needs of adults for education.

An estimated 9 million persons attended adult education classes, according to a national survey, the first of its kind. It was conducted by the Bureau of the Census at the request of the Office of Education and financed by a \$10,000 grant from the Fund for Adult Education. The survey covered only organized adult classes and series of adult education meetings.

It is estimated that altogether between 30 and 35 million adults participated in all kinds of adult courses, including correspondence, individual instruction, private lessons, one-time group meetings, courses offered on radio and television, self-directed study, on-the-job training, and training conducted by the Armed Forces.

The Office of Education served adult education in a number of ways: By publishing articles; participating in national, State, and local meetings, workshops, and conferences; consulting with State and organization leaders and with officials of other Government agencies.

Staff members completed three important studies: (1) The report of the national survey made by the Bureau of the Census in their October 1957 population survey; (2) a study of adult education services, goals, plans, and programs of State departments of education; and (3) a bibliography of education for the aging, the first to be published in this country. And they prepared a publication, *Adult Education in American Education Week*, copies of which were distributed by the National Education Association in 10,000 kits to public school and community leaders.

The Office assisted the Federal Council on Aging and the Special Staff on Aging of the Department of Health, Education, and Welfare in survey of services and programs for the aging; a number of universities and colleges and the Joint Federal State Council on the Aging in a series of conferences; and the National Association of Public School Adult Educators in sponsoring a National Institute for State directors of general adult education to stimulate enrichment of public school adult education curriculums. A staff member continued to serve as consultant to the National Commission for Adult Literacy, a non-government agency established by the Adult Education Association of the U. S. A.

International Education

Today, our children need to learn more about the world than many of them are now taught; they need broadened training in languages, natural science, the social sciences, and the humanities; and they particularly need to learn more about the non-western world.

One of the traditional responsibilities of the Office of Education is to help Americans understand international developments in education. A more recent Office responsibility is to mobilize and service American educational resources for the improvement of international understanding and for technical assistance to the emerging nations.

International educational exchanges have become a primary means of maintaining a climate of public opinion overseas favorable to the United States and towards American policy. Each year, thousands of Americans are sent overseas, and even larger numbers of persons from other countries are brought here to study, to do research, to lecture, and to observe in the expectation that they will learn to understand us and will remain our friends when they return.

There is a growing American population overseas. Thousands of American teachers are annually recruited to staff schools for American children around the world. Such demands are being met through a series of programs, both Federal and private, although they represent a growing drain on strained educational resources.

OFFICE ACTIVITIES

When the Soviet Union launched the first man-made satellite, Americans suddenly became aware of the immense technical progress achieved in the USSR. Furthermore they realized that progress was founded on Soviet education.

Since Soviet education is a rapidly evolving enterprise, continuing research and personal observation by American educators of Soviet schools are required. In recognition of that need a representative of the Office went to Moscow to arrange, in cooperation with the Department of State, for an interchange of books and other educational materials and of teams of 10 educators between the U. S. A. and the USSR. Some of the materials received from Soviet authorities have contributed to our understanding of education as an instrument of communist policy. This growing collection is a center for research on Soviet education, since the Office makes available to the public information on Soviet education. The American team, headed by the U. S. Commissioner of Education, completed its visit to the Soviet Union and will issue a report of its findings in fiscal year 1959. A Soviet team is expected to arrive here during the 1959 fiscal year.

Research in comparative education was continued to provide authoritative information needed by other Federal and State agencies, educators, leaders in international programs concerned with education, and the general public.

Special reports on education in 10 foreign countries (Burma, Ghana, Indonesia, Iran, Iraq, Pakistan, Sudan, Thailand, Turkey, and Viet-Nam) were prepared for use in a U. S. Government project concerned with educational activities abroad to which the U. S. Gov-

ernment or private agencies contribute funds. Work was continued on studies started in 1957 including bulletins on education in Brazil, Haiti, Israel, and Japan; comparative education bibliographies; the teaching of professional education subjects in northern Europe; and the functions and organization of ministries of education in nearly 70 countries. New studies were started on teacher education in certain European countries and on education in the Soviet Zone of Germany.

The Office exchanges its studies with educational organizations and institutions abroad, ministries of education, and other foreign government agencies. Requests for additional copies and for permission to use our material reflect widespread interest.

The Office of Education interprets foreign educational credentials as a service to agencies, to U. S. citizens who have studied abroad, and to foreign citizens. The Office provides this service by analyzing data in some 40 languages and by maintaining and developing access to information on education around the world.

The responsibilities of the Office have increased in size and geographic coverage. By the close of fiscal year 1958, thousands of veterans and unnumbered other United States citizens had studied abroad. More than 40,000 foreign students were enrolled in U. S. educational institutions. Requests for assistance increased from 2,283 in 1946-47 after postwar exchange programs had begun to operate to 4,070 in 1957-58.

One of the most important developments during the year was the application of the United States Government for membership in the International Bureau of Education. Since the Bureau is an international center of educational research and provides for a wide exchange of information, the Government has sent delegates to many of the annual International Conferences on Public Education at Geneva, which are cosponsored by the International Bureau of Education and by the United Nations Educational, Scientific, and Cultural Organization, but the U. S. delegations have not enjoyed the full privileges and benefits that membership insures.

Office specialists in many fields prepared information for publication by the United Nations and contributed to UNESCO reports.

The Educational Materials Laboratory expanded its services and undertook new ones. The Office cooperated with the International Cooperation Administration in developing educational materials for use overseas. A 6-month workshop was organized, in cooperation with George Washington University and the ICA, in which 20 teachers, writers, and illustrators from 13 countries of Asia, the Near East, Africa, and Latin America participated. They were selected and financed by ICA. The program included (1) orientation to educa-

tion in the United States, (2) lectures and field trips, (3) planning and writing individual projects, and (4) two group projects: *The Workshop Sampler* and *The Workshop Weekly*.

The laboratory acquired some 1,500 items of educational material, consulted with visitors, and responded to requests for assistance from American teachers in locating teaching aids for developing international understanding and knowledge of world affairs and from educators abroad seeking information on U. S. educational materials.

The Office provided the Department of State with statistical tabulations on government-sponsored grantees entering and leaving this country during the year, a service it has given annually since 1952, including numbers and types of grantees by country of destination or origin, State of origin or destination, fields of specialization, age groupings, and veterans' status.

In addition to providing this information, the Office prepared records giving the name, address, category, specialty, occupation, and institution of placement of every foreign grantee entering this country during 1958.

In 1958, the Office of Education continued its assistance to the International Cooperation Administration by arranging training programs for 644 participants from 47 countries, an increase of 102 participants over fiscal year 1957. The largest number of participants came from Thailand and Indonesia. The participants included elementary and secondary school teachers, university professors, educational supervisors and administrators at local, provincial, and ministerial levels, and represented a variety of fields. They came to the United States for periods of training ranging from 2 months to 2 years, but the majority of them completed programs of approximately 11 months.

There was an increase in the number of special projects to meet the needs of special groups. These included 11 Japanese professors in university-industry relations, 10 Brazilians in secondary education, 9 Guatemalans in secondary education and administration, 7 Spanish professors in technical education, 6 Korean administrators and supervisors in trade and industrial education, 5 Vietnamese professors in the organization and administration of higher education, and 3 Somali officials in elementary and secondary educational administration.

During Christmas vacation, 150 participants attended special cultural programs designed to promote an understanding of American life. The largest program was at the Center for Continuing Education of the University of Georgia for 66 educators from 8 countries.

The Office cooperated with the International Education Exchange Service, Department of State, in arranging educational programs for 352 visiting educators from 54 countries during the year. Included were 27 teachers and administrators from Central America who took

part in a special 30-day teacher development workshop at the University of Puerto Rico. The regular program consisted of two groups in elementary education, five in secondary education, five in English as a second language, two in American civilization, one in vocational education, and one seminar in elementary and secondary education.

The considerable interest of educators from abroad in coming to the United States to observe educational practices through this program is indicated by the number of applicants for the limited number of grants available in some countries. For example, in Norway, 115 teachers applied for 6 grants; in Japan, 604 teachers and administrators applied for 25 grants; in Singapore, 129 teachers applied for 4 grants; in Italy, more than 400 educators applied for 27 grants; and in Egypt, 70 teachers applied for 9 grants.

The 30-day teacher development workshops conducted in Spanish at the University of Puerto Rico have attracted great interest among Latin American educators.

During the program year, arrangements were made for more than 550 American teachers to participate in teacher exchanges. Among these were the first teacher interchanges between the United States and Cuba. For the first time, American teachers of Spanish were selected to participate in a summer seminar in Colombia, and American history teachers were selected for a seminar in Italy.

Over 40 countries, including Colonial Areas of the United Kingdom, now engage in teacher exchange activities with the United States, and there are six summer seminars for American teachers. A seminar for American school administrators was announced during this year; 20 American school administrators will study educational systems in France and The Netherlands early in 1959.

Evaluative studies and statements in superintendents' reports indicate that exchange teachers have been remarkably successful in promoting a better international understanding. American educational associations are showing increased interest in having foreign educators participate in their conferences and annual conventions.

The Office provides services to visitors from many countries who are not participants in official programs. These visitors are referred to the Office by other Government agencies, by foreign governments, by educational and other agencies, or they visit the Office on their own initiative.

The Office of Education continued to work with the International Cooperation Administration in the development of technical assistance programs in education in 45 countries.

The Office also utilized the competencies of its specialized staff in furnishing technical support on special educational problems of these educators in the countries where they work. This professional

assistance included the provision of Department publications of general and special interest to overseas educational specialists; annotated summaries of recent educational materials; and assistance on a variety of educational problems.

Higher Education

Numerous studies of population growth and projections of school and college enrollments leave no doubt that higher education will be confronted with unparalleled opportunities and with enormous responsibilities in the years immediately ahead. Enrollments in the colleges and universities will reach 6 million by 1970, about double the number enrolled in the fall of 1957. During this brief period, faculties will have to be increased and facilities expanded to provide programs of quality and diversity adequate to the new demands. Colleges will have to recruit annually, on the average, between 15,000 and 22,500 new teachers to keep pace with growing enrollments and to fill vacancies created by resignations and retirements. The graduate schools now award doctorates to about 9,000 persons annually, but only about half of them enter college teaching; the other half go into government, business, or industry.

A large percentage of new college teachers will have to be recruited from the ranks of those who do not hold the doctor's degree. In fact, the percent of new full-time college teachers employed in 1956-57 holding the doctor's degree was 23.5 compared with 40.5 percent of full-time teachers in 1953-54 who held this degree. The employment of less well qualified teachers at a time when enrollments are rising rapidly threatens the quality of higher education.

This manpower situation is intensified by the even greater need for qualified teachers in the elementary and secondary schools. In 1957-58 there was a shortage of 135,000 teachers in public and non-public schools. More than 91,500 teachers, or about 6.5 percent of the total teaching staff in the elementary and secondary schools, were emergency teachers, which means that they did not meet the State's requirements for the lowest teaching certificate. Turnover among teachers was high—about 7.5 percent of the qualified teachers. This does not include teachers who moved from one teaching job to another. Colleges and universities must therefore expand their own teaching staffs and at the same time increase the flow of qualified teachers into the elementary and secondary schools from a common manpower reservoir of college graduates.

To provide information on what some institutions are doing about the shortage, the Office has under way two special projects: One on procedures employed by colleges and universities to meet faculty shortages and the other on salaries and conditions affecting faculty services. In addition it has initiated a survey of beginning teachers.

USE AND EXTENSION OF FACILITIES

The growing pressures of college enrollments require the maximal use of existing facilities and the development of well-considered plans for expansion. Studies already made show that generally with more efficient space utilization a considerable increase in enrollments could be accommodated in present classrooms and laboratories. To provide precise information on a national basis about present facilities and future needs, the Office is making a comprehensive inventory of college and university physical facilities. It has also undertaken a study of summer sessions on the use made of facilities during the summer months. This study will also provide information on programs, use of faculty, and other phases of summer institutional operations.

One important means of providing for increased enrollments is the establishment of junior or community colleges. State and local boards of education and citizens' groups need criteria by which to decide when, where, and under what conditions a junior college or community college can and should be established. The Office has undertaken a study to produce such criteria.

DEVELOPMENT AND MODIFICATION OF EDUCATIONAL PROGRAMS

Studies of educational programs offered have been completed or are under way as follows: Engineering enrollments and degrees granted; social science requirements in bachelor's degree programs irrespective of major subjects; 5-year programs for the preparation of secondary school teachers; organized occupational curriculums and enrollments; and college and university programs in business and public administration.

IMPROVEMENT OF ORGANIZATION AND ADMINISTRATION

As college enrollments increase, the magnitude and complexity of institutional operations will also increase. Moreover, as State-supported institutions expand their programs, the coordination of developments within a State becomes increasingly important. Problems of organization and administration to promote high quality programs and at the same time achieve efficiency and economies within an institution also demand consideration. To aid State boards, State legislatures, and the boards and administrations of individual institutions in dealing with such problems, the Office has under way a number of projects, some new, some continuing or recurring. Especially noteworthy are the following:

1. A study of the structure and functions of State boards responsible for the coordination and control of institutions of higher education.
2. An annual analysis of legislative enactments and proposals for legislation by State legislatures.

3. A round-up report on the efforts of voluntary agencies and associations to plan and coordinate interinstitutional activities.

4. An analysis of the processes and procedures by which administrative policy in higher education is determined at both the State and the institutional level.

ASSISTANCE IN PLANNING AND CONDUCTING SURVEYS

The demands for higher education and the resources for meeting these demands vary widely from one State to another. Each State must therefore appraise its resources and facilities in higher education in relation to its future needs. The Office is called upon repeatedly to assist in designing such studies, to suggest competent staff to conduct the studies, and to read and evaluate reports of the studies. Occasionally, as time permits, the staff members assume responsibility for making a survey.

LEGISLATIVE PROPOSALS

In July 1957 the President's Committee on Education Beyond the High School, appointed by President Eisenhower in the spring of 1956, issued its *Second Report to the President*. The Committee's final report makes 47 recommendations dealing with the need for college and university teachers, the need for financial assistance to students, the expansion and diversity of educational opportunities, financing higher education, and the relation of the Federal Government to education beyond the high school.

Immediately after the Committee issued its report Secretary Folsom appointed a task force on higher education consisting of members of his staff and of the staff of the Office of Education, with the Commissioner of Education as chairman, to review the findings and recommendations of the Committee, to consider its implications for the work of the Office and for legislation, and to develop a program of legislation.

The task force carefully devised proposals for legislation on education which were presented to the President and approved by him. The proposals, introduced in both branches of the Congress in January 1958, were for financial assistance for students in higher education; aid for foreign language institutes and for foreign language centers to teach languages for which instruction is not readily available but which is needed in the United States; aid for fellowships and the expansion of graduate education; assistance for strengthening science, mathematics, and modern foreign language instruction in public schools; aid for guidance, counseling, and testing of students in secondary schools; and assistance to State departments of education for the improvement of statistical services. At the end of the fiscal year the proposals were being considered by the Congress and widely supported by the public.

RESEARCH AND STUDIES IN HIGHER EDUCATION

Among the Office reports and studies in higher education made during the year are the following: A directory of higher educational institutions; baccalaureate degrees conferred by American colleges in the 17th and 18th centuries; survey of State legislation relating to higher education, July 1, 1956 to June 30, 1957; organized occupational curriculums, enrollments, and graduates in 1956; and financial aid for graduate students and for undergraduates.

Assistance to Schools in Federally Affected Areas

Public Laws 874 and 815 were enacted by the 81st Congress in September 1950 to provide Federal assistance to school districts on which activities of the United States had placed serious financial burdens. Public Law 874 provides assistance for current operating expenses and Public Law 815 provides assistance for school construction. In general these two laws recognize as a financial burden the education of children who reside on, or reside with a parent employed on, tax-exempt Federal property such as military bases, atomic energy installations, reclamation projects, Indian reservations, and National forests. Where Federal contract activities with private plants cause a sudden and substantial increase in school enrollment, Federal assistance is authorized if the school district can show budgetary need for the Federal funds.

Approximately \$126 million was paid to school districts under P. L. 874 in fiscal year 1958, on account of 140,000 children who resided on Federal property and 1,110,000 children who either resided on Federal property or resided with a parent employed on Federal property. This is a slight increase over fiscal year 1957 in the number of children for whom payments were made and an increase of approximately \$14 million in payments. These were attending school in 3,330 school districts which had an estimated enrollment of 7.75 million children, or about one-fourth of all children attending public elementary and secondary schools in the United States.

The table below presents the significant figures for the 8 years the program has been in effect.

| Fiscal year | Number of eligible applicants | Net entitlements of applicant districts—all sections | Total current expenditures of applicant districts | Percent of total current expenditures financed by P. L. 874 funds |
|-------------|-------------------------------|--|---|---|
| 1951..... | 1,172 | \$29,000,000 | \$520,370,000 | 5.6 |
| 1952..... | 1,763 | 47,815,000 | 825,926,541 | 5.8 |
| 1953..... | 2,212 | 57,700,000 | 1,040,424,071 | 5.5 |
| 1954..... | 2,524 | 71,850,000 | 1,284,960,000 | 5.6 |
| 1955..... | 2,683 | 75,275,000 | 1,450,700,000 | 5.2 |
| 1956..... | 2,860 | 85,750,000 | 1,754,530,000 | 4.9 |
| 1957..... | 3,331 | 112,370,000 | 2,156,450,000 | 5.2 |
| 1958..... | *3,330 | *126,000,000 | *2,500,000,000 | *5.0 |

* Estimated.

The volume of school construction approved under P. L. 815 continued at about the same level in fiscal year 1958 as in each of the past several years. During the year \$74,519,000 was reserved for 349 projects under all sections of the law. One of the principal reasons for the continued high level of school construction assistance is the construction of housing units for military personnel under title VIII of the National Housing Act—the Capehart Housing Program.

Payments made during the year were for increases in school enrollment of federally connected children in the 2-year increase period, from July 1, 1956, to June 30, 1958, and from July 1, 1957, to June 30, 1959. Fiscal year 1958 marked the first year of operation under an amendment to the law which moved the increase period forward 1 year at a time rather than 2 years, the period used during the past 6 years.

A total of \$826,050,000 has been appropriated by the Congress for P. L. 815 through June 30, 1959. This amount includes \$56,950,000 appropriated in fiscal year 1958 to meet existing obligations through the 1959 fiscal year. Of the total appropriated, \$821,325,000 has been used for project construction and \$4,725,000 for services provided by other Federal agencies.

When projects included under existing authorizations are completed, this program will have provided 1,500 new elementary and secondary schools, 2,200 additions to elementary and secondary schools, 37,235 classrooms and related facilities to house an estimated 1,117,050 children. This total includes 190 projects which will provide an estimated 1,140 classrooms for approximately 33,000 children, mostly Indian children, living on Indian reservation land.

LEGISLATION

Under existing legislation P. L. 874 ends June 30, 1958, and no applications can be submitted beyond June 30, 1959, under P. L. 815. After an extensive review and study of these two programs the Department of Health, Education, and Welfare submitted recommendations to the Congress early in January 1958 for amendment and extension of the two acts to bring Federal payments more nearly in line with the financial burden on school districts caused by Federal activities under present conditions. After extensive hearings by the House Committee on Education and Labor a bill was reported and passed the House on April 27, 1958, which extended on a permanent basis assistance under both laws for school districts educating those children who lived on Federal property or with a parent employed on Federal property, and extended all other categories of Federal impact until June 30, 1961. The bill as passed by Congress and signed by the President included a number of amendments, some liberalizing the benefits under both laws and others restricting Federal payments.

Cooperative Research

The Cooperative Research Program (P. L. 531, 83d Cong.) has been designed to permit the Office to increase the quantity of and add depth to its research by supporting such work in colleges and universities and State school systems throughout the country. The procedure offers many advantages; for example, (1) it affords a means for gathering together the ideas of hundreds of highly qualified, professional persons and selecting from among them those which seem most promising; (2) it secures the services of persons with knowledge, training, and experience in the special techniques and skills needed to do research; (3) it provides opportunities for training research personnel; (4) it permits the utilization of research facilities and laboratories in the schools and colleges; and, (5) because it requires the cooperating institution or agency to contribute either services or facilities, it yields a greater volume of research than could otherwise be purchased for the Federal funds expended.

The purpose of the Cooperative Research Program is to develop new knowledge about the educational process and to devise new applications of existing knowledge. To accomplish this purpose, the program must be directed toward gathering information about the fundamental processes of education. For example, educators need far more information than is currently available about the extent and nature of individual differences—information which explains not only the intellectual functioning of the mentally retarded, the normal, and the gifted but also the subtle personality distinctions existing within each of these groups.

Under present procedure proposals for specific research projects from institutions of higher education and from State departments of education are reviewed within the Office and then submitted to the Office of Education Research Advisory Committee for evaluation. This Committee, consisting of nine specialists in research appointed by the U. S. Commissioner of Education, evaluates all proposals on the basis of the (1) significance of the problem for education, (2) soundness of the research design, (3) personnel and facilities available for the research, and (4) economic efficiency or relationship of the proposed expenditure to the procedures and probable outcomes.

When a proposal is recommended by the Committee and approved by the Commissioner a contract is negotiated directly with the institution or agency. Although the Office provides most of the funds, the cooperating institution or agency also contributes to the total cost of each project, usually by providing professional services and facilities.

During 1958 the Office received 172 proposals for projects under the program, and the advisory Committee recommended 50 of them for approval. The appropriation available for this second year of pro-

gram operation was \$2.3 million. More than half was needed to continue the support of projects begun during the first year, and the remainder—approximately \$960,000—was used for the initiation of new projects. By the year's end, 64 new contracts had been signed. Among them were 11 dealing with the education of the mentally retarded, 10 with the identification and development of gifted students, and 8 with the selection and career development of teachers and administrators, and guidance and counseling.

The Federal funds expended in the first 2 years of program operation were disbursed in 31 States, the Territory of Alaska, and the District of Columbia. A total of 53 colleges and universities and 12 State departments of education participated. The length of the projects initiated ranged from 3 months to 5 years, but the average length was about 2 years. The total cost of the projects ranged from \$1,500 to \$600,000, with an average of \$64,000 for projects on the mentally retarded and \$33,000 for other projects. The average total cost for all projects was \$49,000.

A total of 14 reports on projects completed during the year were received by the Office; 9 were on the education of the mentally retarded; 2 on gifted students; 2 on teachers; and 1 on child development.

To disseminate results of the program the Office plans to hold seminars on the information gained; to conduct clinics for the improvement of existing techniques and the development of new techniques; to publish reports and articles in professional journals and periodicals; to demonstrate new procedures and techniques at meetings of various organizations; to urge researchers to talk about their work to local groups; and to give general publicity to the projects being supported.

Libraries

Libraries in 1958 continued to improve and extend their services but not rapidly enough to meet the needs of an expanding population with ever-increasing demands for information.

Recruiting trained librarians was a major problem for all libraries. There was greater interest in work simplification and cooperative practices among libraries to decrease duplication of effort. Larger units of library service were being more rapidly organized, and in-service training programs for professional and clerical employees were receiving increased attention.

Throughout 1958, the Office continued working toward one of its basic objectives: to improve the resources, services, and facilities of

school, college, research, special, State, and public libraries and to provide information on education for librarianship.

SCHOOL LIBRARIES

Chapter 6 of the *Biennial Survey of Education in the United States, 1952-54*, "Statistics of Public School Libraries, 1953-54," indicates the need to strengthen programs for recruiting and training professional school librarians who are especially needed in the elementary schools. The study reveals that only 3,416 professional school librarians were available for service to 104,365 elementary schools in 1953-54, and that schools reporting library expenditures for 1953-54 spent \$25,222,207 on library materials for an enrollment of 24,017,371 students, or \$1.05 per pupil, which is far below the minimum recommended by American Library Association.

An examination of official announcements issued by nearly 1,900 higher education institutions in 1956-57 revealed that 563, or nearly one-third, were endeavoring to meet the prevailing demand for school librarians through programs in school library education. The proliferation of library courses has raised some questions about standards for professional preparation of school librarians and has created problems in accreditation of many programs.

PUBLIC LIBRARIES

Three statistical surveys of public libraries were conducted and reports issued during 1958. A survey of county and regional libraries for fiscal year 1956 included responses from 148 library systems as against 120 for the year before, reflecting a rapid increase in the development of centralized library units. The responses also revealed increased per capita income and use of larger systems.

Statistics of Public Libraries in Cities with Populations of 100,000 or More: Fiscal Year 1957, reported increases on all items covered, with a 4.2 percent increase in book circulation in 1957 over 1956 and a total increase since 1950 of 27.1 percent. Salaries accounted for 72.9 percent of the total operating expenditures; books and periodicals, 12.2 percent; and audiovisual materials, 0.4 percent.

Statistics of Public Library Systems in Cities with Populations of 50,000 to 99,999: Fiscal 1957, showed that the total number of volumes owned by public library systems in this population group had increased 14.5 percent between 1952 and 1957 and 4.1 percent between 1956 and 1957. Overall operating expenditures for libraries had increased, salaries by 11.4 percent over 1956. Book and periodical expenditures absorbed 15 percent of total operating expenditures and audiovisual materials an additional 0.7 percent.

LIBRARY SERVICES FOR THE AGED

One Office responsibility is the coordinating of library service with other forms of adult education. To learn what public libraries were doing to meet the needs of old people, the American Library Association, in cooperation with the Office, conducted a survey of all public libraries in places with populations of 2,500 and over. The 1,391 replies showed that provision of books, publicizing of available materials, provision of shut-in service, and working with other community agencies were the most frequently offered services.

GRANTS FOR LIBRARY SERVICES

The Library Services Act (Public Law 597, 84th Cong.) authorizes the expenditure of \$7.5 million a year for 5 years, beginning July 1, 1956, to improve and extend library service to rural areas with no service or with inadequate service.

The contribution of the act to the development and improvement of public library services to rural areas increased in the second year of the program. Forty-five States and the Territories of Alaska, Hawaii, Guam, Puerto Rico, and the Virgin Islands participated in the 1958 program and shared in the \$5-million grant. State and local matching funds raised the total budgets of the 50 State and Territorial programs to \$15,464,175.

State plans indicate that over 300 rural counties with populations totaling more than 7½ million children and adults were receiving new or improved library services under the program in 1958. State, local, and Federal funds totaling \$7 million have been combined to buy books and other informational materials. More than 90 bookmobiles and 30 other vehicles were bought to bring materials to rural families. State library agencies responsible for administering State plans have added more than 100 experienced librarians and more than 80 clerks and bookmobile operators to improve their service.

The programs under the act have also aroused much interest in the development of public library service. There have been many inquiries about county and regional library service and other co-operative library programs including the centralized processing of books, scholarship programs, and inservice training in modern library techniques. This interest has resulted in an increasingly active communications and field work program by the Office staff with the States and Territories.

Table 1.—Enrollment in the continental United States, 1956–57 and 1957–58

[Office of Education estimates]

| School | Year | |
|---|--------------|--------------|
| | 1956–57 | 1957–58 |
| Kindergarten through grade 8: | | |
| Public school system (regular full-time)..... | 25, 283, 000 | 26, 037, 000 |
| Nonpublic schools (regular full-time)..... | 4, 267, 000 | 4, 466, 000 |
| Federal schools for Indians..... | 26, 000 | 26, 000 |
| Federal schools under P. L. 874..... | 19, 000 | 20, 000 |
| Other..... | 116, 000 | 121, 000 |
| Total kindergarten through grade 8..... | 29, 711, 000 | 30, 670, 000 |
| Grades 9–12: | | |
| Public school system (regular full-time)..... | 6, 876, 000 | 7, 399, 000 |
| Private and parochial schools (regular full-time)..... | 866, 000 | 942, 000 |
| Federal schools for Indians..... | 11, 000 | 11, 000 |
| Federal schools under P. L. 874..... | 1, 000 | 1, 000 |
| Other..... | 66, 000 | 71, 000 |
| Total grades 9–12..... | 7, 820, 000 | 8, 424, 000 |
| Total elementary and secondary..... | 37, 531, 000 | 39, 094, 000 |
| Higher education: | | |
| Universities, colleges, professional schools, including junior colleges and normal schools..... | 3, 244, 000 | 3, 450, 000 |
| Other schools: | | |
| Private commercial schools (day and evening)..... | 500, 000 | 500, 000 |
| Nurse training schools (not affiliated with colleges and universities)..... | 91, 000 | 91, 000 |
| Total other schools..... | 591, 000 | 591, 000 |
| Grand total..... | 41, 366, 000 | 43, 135, 000 |

Table 2.—Supply and demand for elementary and secondary public and non-public school teachers, 1957–58

| Item | Elementary and secondary |
|--|--------------------------|
| <i>Supply</i> | |
| Total teachers 1956–57 ¹ | 1, 342, 100 |
| Less emergency teachers 1956–57..... | 89, 400 |
| Total qualified teachers 1956–57..... | 1, 252, 700 |
| Less 7.5 percent turnover of qualified teachers ² | 94, 000 |
| Qualified teachers returning for 1957–58..... | 1, 158, 700 |
| Emergency teachers qualifying for 1957–58..... | 22, 000 |
| New supply of qualified teachers (80.8 percent of elementary and 63.2 percent of high school teachers trained in 1956–57)..... | 81, 400 |
| Total qualified supply 1957–58..... | 1, 262, 100 |
| <i>Demand</i> | |
| Total teachers 1956–57 ¹ | 1, 342, 100 |
| Teachers needed to meet increase in enrollment in 1957–58..... | 55, 000 |
| Total demand 1957–58..... | 1, 397, 100 |
| Shortage of qualified supply..... | 135, 000 |

¹ The number of elementary and secondary school teachers in the public school system, in the fall of 1956, was 1,197,000 (Office of Education Circular No. 490). To this must be added an estimated 145,000 teachers in nonpublic schools (private and parochial), in model and practice schools, in subcollegiate departments of colleges and universities, in residential schools for exceptional children, and in schools operated under Federal auspices.

² Turnover, as used here, includes only those who leave the profession of teaching through death, retirement, marriage, or to take a position in some other field. Changes of positions from one school system to another are not included.

Table 3.—Grants¹ to States: Office of Education, fiscal year 1958

| State or Territory | 1 | | | | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
|---------------------------|---|--|--|--|--|--|------------------|---|--|--|--|--|--|--|--|------------------|--|
| | | | | | | Colleges for agri- culture and mechanic arts | Library services | | | Cooperative vocational education | | Maintenance and operation of schools (Public Law 874) | | School construc- tion (Public Law 815) | | Total | |
| Total..... | | | | | | \$5,051,500.00 | \$4,892,032.00 | | | \$39,192,367.87 | | 2 \$104,143,294.48 | | 3 \$74,397,453.73 | | \$227,070,048.08 | |
| Alabama..... | | | | | | 100,541.43 | 130,644.00 | | | 1,089,230.30 | | 2,812,276.81 | | 1,724,020.70 | | 5,866,313.24 | |
| Arizona..... | | | | | | 77,477.26 | 58,514.00 | | | 216,420.74 | | 1,447,936.18 | | 1,353,022.90 | | 3,153,971.08 | |
| Arkansas..... | | | | | | 89,047.71 | 114,056.00 | | | 784,291.27 | | 780,380.82 | | 1,193,352.74 | | 2,961,128.54 | |
| California..... | | | | | | 175,599.47 | 158,520.00 | | | 2,076,551.32 | | 16,609,142.54 | | 13,463,109.30 | | 32,482,922.63 | |
| Colorado..... | | | | | | 83,218.00 | 68,592.00 | | | 340,527.15 | | 2,802,531.09 | | 2,118,474.20 | | 5,413,342.44 | |
| Connecticut..... | | | | | | 90,022.98 | 65,812.00 | | | 370,367.29 | | 1,258,202.72 | | 947,142.69 | | 2,731,547.68 | |
| Delaware..... | | | | | | 73,172.96 | ----- | | | 186,219.00 | | 147,032.36 | | 30,030.00 | | 436,454.32 | |
| District of Columbia..... | | | | | | 97,644.26 | 95,308.00 | | | 120,480.68 | | 3,171,216.63 | | 3,453,326.17 | | 7,459,206.62 | |
| Florida..... | | | | | | 104,360.28 | 149,159.00 | | | 641,711.56 | | 3,640,764.01 | | 2,103,986.68 | | 7,141,017.33 | |
| Georgia..... | | | | | | ----- | ----- | | | 1,142,747.36 | | ----- | | ----- | | ----- | |
| Idaho..... | | | | | | 75,871.76 | 62,412.00 | | | 233,722.43 | | 679,225.01 | | 695,455.00 | | 1,746,886.20 | |
| Illinois..... | | | | | | 156,905.51 | 142,780.00 | | | 1,707,523.32 | | 2,152,758.48 | | 528,947.00 | | 4,688,014.31 | |
| Indiana..... | | | | | | 109,244.59 | ----- | | | 939,462.50 | | 555,253.87 | | 508,700.00 | | 2,132,660.96 | |
| Iowa..... | | | | | | 96,145.67 | 102,604.00 | | | 845,033.63 | | 309,803.91 | | 15,432.38 | | 1,360,041.79 | |
| Kansas..... | | | | | | 89,005.70 | 71,649.00 | | | 606,123.03 | | 3,138,386.15 | | 1,251,394.34 | | 5,156,774.22 | |
| Kentucky..... | | | | | | 99,374.97 | 147,746.00 | | | 1,079,990.05 | | 787,576.28 | | 94,386.00 | | 2,269,073.30 | |
| Louisiana..... | | | | | | 96,708.55 | 110,170.00 | | | 747,853.68 | | 830,262.56 | | 1,178,000.00 | | 2,963,054.79 | |
| Maine..... | | | | | | 79,115.06 | 103,250.00 | | | 229,966.26 | | 837,927.32 | | 59,425.00 | | 1,309,683.64 | |
| Maryland..... | | | | | | 93,371.85 | 66,000.00 | | | 473,051.54 | | 4,740,494.75 | | 3,542,116.80 | | 8,915,034.94 | |
| Massachusetts..... | | | | | | 116,788.72 | 78,487.00 | | | 780,983.95 | | 2,280,616.48 | | 511,526.00 | | 3,768,402.15 | |
| Michigan..... | | | | | | 133,559.50 | 146,547.00 | | | 1,367,498.24 | | 488,584.69 | | 5,648,584.13 | | 7,784,773.56 | |
| Minnesota..... | | | | | | 99,750.80 | 117,448.00 | | | 872,948.71 | | 66,205.88 | | 397,411.99 | | 1,553,765.38 | |
| Mississippi..... | | | | | | 91,735.06 | 131,012.00 | | | 979,427.07 | | 787,136.02 | | 325,523.34 | | 2,314,833.49 | |
| Missouri..... | | | | | | 109,448.37 | 119,936.00 | | | 1,135,819.43 | | 1,225,615.52 | | 1,262,294.08 | | 3,853,113.40 | |
| Montana..... | | | | | | 75,895.57 | 59,282.00 | | | 216,796.54 | | 382,989.97 | | 504,443.97 | | 1,239,408.05 | |

| | | | | | | |
|---------------------|------------|------------|--------------|--------------|--------------|---------------|
| Nebraska..... | 83,222.20 | 77,030.00 | 427,474.68 | 983,935.35 | 230,987.31 | 1,802,649.54 |
| Nevada..... | 71,596.86 | 43,757.00 | 189,207.64 | 636,064.61 | 596,306.20 | 1,536,932.31 |
| New Hampshire..... | 75,319.18 | 53,112.00 | 176,383.73 | 509,476.34 | 208,032.00 | 1,022,323.25 |
| New Jersey..... | 118,233.27 | 74,163.00 | 762,271.39 | 1,306,929.61 | 790,437.00 | 3,061,034.27 |
| New Mexico..... | 76,794.96 | 59,647.00 | 242,228.12 | 2,019,291.65 | 5,073,909.55 | 7,471,871.28 |
| New York..... | 217,933.81 | 164,365.00 | 2,535,932.57 | 1,847,488.68 | 753,656.00 | 5,519,376.06 |
| North Carolina..... | 110,518.47 | 195,986.00 | 1,491,395.46 | 1,294,756.75 | 1,230,680.00 | 4,323,336.68 |
| North Dakota..... | 76,180.98 | 66,337.00 | 283,285.67 | 175,469.38 | 208,918.00 | 810,191.23 |
| Ohio..... | 149,969.02 | 177,140.00 | 1,633,443.66 | 3,091,908.04 | 1,176,335.63 | 6,228,098.35 |
| Oklahoma..... | 92,278.07 | 97,370.00 | 734,664.25 | 4,364,912.01 | 1,198,608.48 | 6,487,662.81 |
| Oregon..... | 83,173.65 | 80,651.00 | 419,425.25 | 556,679.01 | 398,191.00 | 1,540,121.91 |
| Pennsylvania..... | 174,719.55 | 187,882.00 | 2,088,272.21 | 1,492,507.76 | 136,742.00 | 4,080,123.52 |
| Rhode Island..... | 77,899.30 | 40,000.00 | 188,203.74 | 1,137,220.69 | 642,117.07 | 2,085,440.80 |
| South Carolina..... | 91,117.72 | 117,541.00 | 721,251.02 | 2,103,647.92 | 1,086,334.16 | 4,119,891.82 |
| South Dakota..... | 76,511.20 | 65,248.00 | 283,957.76 | 1,058,739.22 | 373,872.86 | 1,858,329.04 |
| Tennessee..... | 102,835.48 | 146,494.00 | 1,132,229.43 | 1,327,935.89 | 307,577.04 | 3,017,071.84 |
| Texas..... | 146,920.54 | 138,494.00 | 1,896,541.65 | 7,740,124.66 | 4,191,039.40 | 14,113,120.25 |
| Utah..... | 76,871.52 | 67,868.00 | 191,677.29 | 1,075,901.06 | 2,271,260.37 | 2,271,260.37 |
| Vermont..... | 73,768.09 | 52,638.00 | 185,866.65 | 51,643.23 | 858,942.50 | 363,915.97 |
| Virginia..... | 103,104.43 | 141,830.00 | 1,003,699.20 | 8,726,016.72 | 5,183,703.48 | 15,158,353.83 |
| Washington..... | 93,730.58 | 130,714.00 | 614,711.82 | 4,303,973.03 | 3,080,151.20 | 8,223,290.62 |
| West Virginia..... | 90,005.74 | 115,917.00 | 635,461.43 | 135,789.00 | 6,568.00 | 983,541.17 |
| Wisconsin..... | 104,260.50 | 116,138.00 | 987,892.68 | 214,630.94 | 117,300.00 | 1,540,222.42 |
| Wyoming..... | 72,898.08 | 176,378.23 | 176,378.23 | 312,706.75 | 431,307.32 | 1,013,290.38 |
| Alaska..... | 71,283.24 | 40,000.00 | 39,500.00 | 3,689,484.84 | 708,311.30 | 4,548,579.38 |
| Guam..... | 74,985.53 | 12,970.00 | 2,000.00 | 356,355.29 | 780,482.00 | 1,151,807.29 |
| Hawaii..... | 50,000.00 | 48,971.00 | 183,837.05 | 1,697,744.00 | 1,686,418.62 | 3,691,956.20 |
| Puerto Rico..... | | 50,000.00 | 704,956.04 | | | 804,956.04 |
| Virgin Islands..... | | 20,641.00 | 55,463.70 | | | 76,104.70 |

¹ On a checks issued basis.

² Does not include payments made to Army, \$2,830,863.61; Air Force, \$1,135,139.67; Navy, \$951,079.84.

³ Does not include payments made to Housing and Home Finance Agency in the amount \$2,492.26.

Food and Drug Administration

PREVIOUS REPORTS have outlined recommendations made by the Citizens Advisory Committee in 1955 to strengthen FDA's staff, facilities, and techniques to better protect the health and well-being of consumers of foods, drugs, and cosmetics. The Secretary's Consultants on Medical Research and Education, after a study of the medical research activities of the Department, endorsed these conclusions in its report of June 30, 1958.

That report pointed to the responsibility of the Food and Drug Administration for protecting consumers against foods, drugs, and cosmetics that are a threat to health by reason of such factors as contamination, deterioration, toxicity, or quackery. "The Consultants are of the opinion," the report states, "that a vigorous research effort is critically important to the effective performance of the statutory responsibilities of the FDA." The Consultants recommended that "High priority be given to (1) securing additional funds required for research and training and strengthening the staff, and (2) securing funds required for a suitable, well equipped building for the Food and Drug Administration functions."

In the fiscal year 1955 when the Citizens Advisory Committee was making its study, the FDA staff averaged 806 man-years. The recommended 3- to 4-fold expansion began on July 1, 1956. In the fiscal year 1958 the staff averaged 1,095 and was 1,215 at the close of that period. Seventy new positions for the new District to be opened in Detroit were provided for in the 1959 appropriation, which also included funds to begin equipping an eighteenth District in the Dallas-Fort Worth area of Texas.

FDA has been going through a period of planning, to absorb this increase in manpower and the more substantial ones to come if the recommended goals are met. During the past two years a workload

survey was conducted which will be of value as a guide in directing future activities. "Training the trainers" has been stressed during the year. Those selected to indoctrinate an augmented staff and to equip the inspectors and analysts with the specialized skills for regulatory work have been attending conferences and schools conducted by specialists from the technical divisions. Significant improvement has resulted in abilities to use new equipment and methods, and also in supervisory proficiency.

One of the major recommendations of the Citizens Advisory Committee was the enlargement and improvement of FDA's educational and information program "to develop a better understanding of the objectives and requirements of the food and drug laws." A Division of Public Information was established in 1958, by consolidating information activities and staff formerly scattered in three units. This Division is coordinating and stepping up the information program for consumers, industry, and affected professional groups to the greatest extent possible until the staff can be increased.

Added public protection has been provided by increased coverage of establishments and shipments. Establishment inspections rose from 16,287 in fiscal 1956 to 26,063 in 1958 and domestic samples collected from 17,675 to 25,269. During this period FDA inspectors reported increasing voluntary correction of unsatisfactory conditions pointed out to management during inspections.

Progress has also been made in basic scientific research, streamlined processing of new-drug applications, increased activities in formulation and enforcement of food standards and pesticide tolerances, and more participation in industry meetings.

This record would not be complete without an acknowledgment to those who have assisted FDA in its educational programs. There are strong trade and professional associations influencing the conduct of their members in almost every area of FDA regulatory activity. More and more of these associations are wholeheartedly undertaking campaigns to encourage better compliance with the law.

The Proprietary Association launched an educational program to encourage consumers to read labels and follow directions carefully in the use of drugs. The new Pharmaceutical Manufacturers Association—merger of the American Drug Manufacturers Association and the American Pharmaceutical Manufacturers Association—is continuing its Government-Industry Committee. This committee has been active for many years in efforts to promote voluntary compliance, understanding, and cooperation between member firms and FDA. Similar objectives resulted in a meeting with FDA of 90 representatives of food manufacturing industries and associations of food producers, called at the request of the Food Law Institute.

The American Medical Association launched a vigorous educational campaign to warn the public against medical and nutritional quackery. Collaborating with the FDA and the National Better Business Bureau, AMA produced an educational motion picture, "The Medicine Man," designed to expose the public harm done by false and misleading promotion of vitamin products.

Naming all who have assisted in specific programs is precluded in this brief report. They include national associations and their affiliates, agricultural leaders, nutrition associations, consumer organizations, and State and local food and drug officials. The trade and professional press has performed an invaluable service in disseminating information to industry members and groups. Major programs showing progress include:

Cleaner wheat for food use, including better sanitation of grain elevators;

Protection of dairy products from spoilage, filth, or contamination with antibiotics or pesticides;

Proper use of pesticides to avoid excess residues;

Cleaner grapes for juice;

Prevention of bacteriologic contamination in frozen foods;

Prevention of diversion of incubator rejects to food channels;

Improvement of bakery sanitation;

Protection of coffee shipments from ore contamination;

Codes of labeling for drugs and cosmetics to prevent misleading claims.

One of the most promising opportunities for better consumer protection is the legislation to insure safety of food additives passed the last day of the 85th Congress—the outcome of hearings that began in 1950. This amendment is discussed under "Changes in the Law and Regulations."

Food, Drug, and Cosmetic Act

ON THE FOOD FRONT

Unusual attention was required of regulatory officials as floods, tornadoes, and hurricanes damaged extensive areas but caused relatively minor loss of foods and drugs in comparison with those damaged by fires, explosions, and wrecks. Local food and health officials take the major responsibility in such cases for preventing the consumption of polluted supplies. FDA inspectors assist in surveillance of damaged stocks and salvage operations when necessary.

Potential Health Hazards

Deleterious ingredients.—Imports of tuna were checked throughout the year by FDA for evidence of radiological contamination following atomic tests in the Pacific. No radioactive lots were encountered. Some canners have acquired equipment for maintaining constant checks of tuna imported for processing.

Authentic data on the natural radioactivity of a broad variety of foods produced before the first atomic explosions in 1945, secured in a survey initiated in 1957, were analyzed statistically. Present-day foods are being sampled and analyzed for comparison, with particular emphasis on fresh fruits and vegetables and forage crops from every production area to detect any trend indicating radioactivity affecting the food supply. FDA is also surveying the disposal of radioactive wastes to detect any contamination of plants grown on exposed land.

Insect pests become increasingly difficult to control—hence growers may be tempted to use excessive amounts of recommended insecticides, apply them too close to harvest, or use insecticides which are not permitted on food crops. Man-hours spent for investigation, analysis of samples, educational activities, and other efforts to insure safe use of pesticides increased 28 percent compared with the previous year. Thirty-six shipments of raw agricultural products were seized because residues exceeded official tolerances. More than 8,000 bushels of fresh spinach were seized in 12 actions after FDA found that a grower had used several applications of numerous insecticides to control insects in his spinach and had shipped the crop with excessive DDT residues. Another seizure involved frozen spinach which contained DDT residue in excess of that permitted on fresh spinach.

Investigating mysterious deaths of dairy cattle in upper New York, FDA inspectors learned that the herds had been fed silage made from cornstalks that had been heavily sprayed with DDT and malathion. Tests showed that both uncut stalks and the silage contained large residues of DDT, and milk from the herds fed the silage also contained DDT. Sixteen tons of silage remaining from the only lot shipped were seized and State officials were notified.

Twenty seizures involved nearly 2 million pounds of wheat, corn, oats, and barley mixed with seed grain that had been treated with poisonous mercurial and organic compounds. Another shipment of more than $\frac{1}{3}$ million pounds of wheat contained hydrogen cyanide in excess of the established tolerance on wheat.

Two seizures were made of poultry containing diethylstilbestrol pellets in the necks. Directions for artificial "caponizing" of young birds call for implanting the pellets near the base of the head so that undissolved portions will be discarded at the time of slaughter.

Hard gum candy and two types of rindless cheese with mineral oil coatings used to facilitate processing and packaging were seized on

the charge that mineral oil is an added deleterious substance not required in good manufacturing practice. Alfalfa meal containing mineral oil was also seized.

Other seizures of foods contaminated by deleterious ingredients included chocolate-flavored sirup containing coumarin, and shell pecans dyed with an uncertified coal-tar color.

Two lots of food in storage were seized because of improper use of pesticides to control rodents and insects—bagged flour contaminated by DDT and mung beans on which fluorine had been dusted.

Food poisoning.—Inadequate sanitary precautions in handling prepared foods, or lack of proper refrigeration were apparent in most of the 49 outbreaks of food poisoning which FDA investigated, affecting approximately 4,000 people. Seven botulism outbreaks involving 20 individuals and 5 fatalities, were traced to inadequately processed home-canned foods.

FDA participated with local and State officials in an extensive investigation of the cause of illness of 423 persons following 3 church dinners. The food had been prepared by a caterer and hauled 500 miles under varying conditions of refrigeration. Following the investigation the caterer stopped using second-hand frozen-egg cans for refrigerated foods. He also corrected other practices and plant conditions which were potential sources of contamination.

Food recalls.—Three recalls were made of food products containing glass in such amounts and size as to render them potentially harmful. The largest involved stocks of chili powder distributed so widely that a public warning was issued jointly by FDA and the manufacturer. Other foods recalled included a cheese product containing sharp lactose crystals, camphorated oil labeled olive oil, a decomposing canned food, and coffee with a kerosene odor and taste, but not containing enough kerosene to endanger health.

To Keep Food Clean

Major food sanitation programs of the year included improvement in the cleanliness of wheat, sanitation of grain elevators and warehouses, continuation of milk and bakery improvement, and prevention of bacterial contamination of frozen foods. Continued surveillance over other products is reflected in table I.

Increased staff has permitted more investigation into possible avenues of contamination and adulteration at various stages of food production. This has served to focus industry attention on problems developing at early stages of production or storage, with particular attention to the elimination of unfit materials for processing.

Inspection time at food warehouses was doubled to remove unfit merchandise from food channels and bring about basic corrections of

insanitary conditions. Seizures increased to 178 from 109 the previous year, and 24 criminal actions were filed in comparison with 9 in 1957. Conditions that required correction included inadequate protection against insects, rodents, and birds; acceptance of returned insect-infested foods; storage directly on floors or against walls; and storage of fit new shipments in contaminated areas.

Fifty-seven carloads of bulk wheat were seized. One of the seized lots contained insect-damaged kernels, the remainder had rodent pellets in excess of actionable levels.

Table 1.—Actions on foods during the fiscal year 1958

| Projects | Seizures | Criminal prosecutions instituted | Injunction petitions |
|---|----------|----------------------------------|----------------------|
| Total..... | 824 | 91 | 17 |
| Beverages and beverage materials..... | 17 | 2 | — |
| Bakery, ready to eat cereal, and macaroni products..... | 18 | 11 | 1 |
| Cereals and grain products: | | | |
| Human use..... | 137 | 8 | 9 |
| Animal use..... | 12 | 6 | — |
| Chocolates, sugars, and related products..... | 15 | 5 | — |
| Dairy products: | | | |
| Butter and churning cream..... | 37 | 6 | — |
| Cheese and other dairy products..... | 11 | 4 | — |
| Eggs and egg products..... | 23 | 4 | — |
| Flavors, spices, and condiments..... | 34 | 2 | 3 |
| Fruits and fruit products..... | 44 | 1 | — |
| Meat products and poultry..... | 21 | 2 | 1 |
| Nuts and nut products..... | 74 | — | — |
| Oils, fats, and oleomargarine..... | 17 | 3 | — |
| Seafood..... | 59 | 2 | 1 |
| Vegetables and vegetable products..... | 88 | 4 | 1 |
| Miscellaneous foods (mixed lots)..... | 2 | 2 | — |
| Warehoused foods..... | 178 | 24 | 1 |
| Food for special dietary uses ¹ | 34 | 4 | — |
| Volative serving of oleomargarine..... | — | 1 | — |
| Food adjuncts..... | 3 | — | — |

¹ Includes vitamin products intended as food supplements.

Increased attention was given to wheat storage, both in country and terminal elevators. Continued improvement in sanitation has resulted from a combination of educational and regulatory work. FDA personnel have given sanitation talks at many large and small industry meetings.

Inspections of elevators serve both educational and regulatory purposes. If the owner wants to improve sanitation as suggested, and a majority do, he has a custom-made guide to follow in the written comments the inspector leaves. Owners of some run-down buildings have found adequate repairs hopeless and converted them to storing nonfood products.

Seven petitions were filed to enjoin elevators that failed to show sanitary improvements on repeated inspections. At the end of the year 5 were under court orders to refrain from shipping contaminated grains in their possession and to clean up their premises before

further shipments. The other two promptly corrected the conditions on which the petitions were based.

Surveillance has been maintained over a few firms that apparently have cornered the market in incubator reject eggs. These operators collect the infertile eggs rejected by hundreds of small hatcheries and truck them to large breaking plants, sometimes hundreds of miles away. Those not actually rotten, but undergoing decomposition, are broken out and frozen for sale to bakeries at bargain prices. Such firms operate by bootleg methods that challenge detection. Inspectors have had some success, however, through round-the-clock vigilance near concentration points until trucks were loaded and then following them across State lines where seizures were made. Law enforcement officers of several States have joined FDA in attempts to break up this million-dollar-a-year racket.

Filth or decomposition was charged in 78 percent of the food seizures; 5,466 tons were seized in 639 actions. Of these, 329 involved merchandise that became unfit after interstate shipment. An additional 2,108 tons of unfit food were voluntarily destroyed or converted to nonfood use by their owners as a result of FDA inspections.

Seventy-two criminal prosecution cases charging shipment of filthy or decomposed foods or insanitary operations were instituted. Sixty-six prosecutions based on filth and decomposition were terminated in the courts, with pleas of guilty or conviction in 65 and a verdict of not guilty in 1, a case brought by grand jury indictment. Penalties ranged from probation to a fine of \$3,500. The 5 jail sentences imposed were suspended.

In addition to the elevator injunctions mentioned earlier, the courts were requested to enjoin 9 firms from shipping food that had been processed or held under insanitary conditions. These cases involved flour, rice, crabmeat, vinegar, poultry, frozen peas, and wholesale items for the bakery trade. All were under permanent injunction or temporary restraining order at the end of the year.

Pocketbook Protection

A Federal judge refused to enjoin an oyster packer from shipping raw shucked oysters which the Government charged were adulterated with water. He pointed out that the proof adduced in the trial was in conflict with the findings of fact of the oyster standard, and was otherwise inadequate because of the uncertain state of scientific knowledge about oysters. The Government withdrew two other cases based on similar evidence but maintained one case based on more direct facts which can rarely be obtained.

To acquire scientific facts on which enforcement evidence can be adequately founded for general application, plans have been made

for joint research by the oyster industry, the Fish and Wildlife Service and FDA. If results of this research so indicate, revision of the standard will be considered.

To obtain compliance with the bread standards and to prevent exaggerated claims for breads, a restraining order was obtained to prevent the distribution of articles labeled "Buttermilk Bread" and "Enriched Buttermilk Bread," names not permitted for standardized bread. Increasing adoption of fanciful names for bread differing only superficially from standardized breads is misleading to the public. FDA advised bakers across the nation about the action and many voluntarily changed their labels to eliminate misleading names.

A 9-month jail sentence was imposed for "butterlegging." Inspectors found on the defendant's premises a butter printing machine still containing margarine, butter wrappers, and margarine labeled "butter." Fines were assessed against firms or individuals for shipping sorghum sirup adulterated with other sugar sirup, cocoa adulterated with cottonseed flour, short-weight potato chips, substandard enriched flour, cottonseed oil labeled "olive oil," low-fat butter, and four low-protein animal feeds. Another fine was assessed for serving colored margarine without due notification.

Among the articles seized because valuable ingredients had been extracted or replaced by spurious ingredients were spent paprika masquerading under misleading names, paprika containing powdered beets, peanut butter containing soy and cottonseed oils, sorghum with corn sirup and cane sugar, olive oil blends with cheaper oils in place of olive oil, and frozen shrimp with ice.

Of 10 seizures for short weight, 4 involved coffee and 2 olive oil. Products seized for failure to meet official standards included low-fat butter and cheese, shrimp, oysters, enriched flour, and a number of canned fruits and vegetables.

PRODUCTS OF SPECIAL DIETARY SIGNIFICANCE

FDA has diverse responsibilities in the area of special dietary products. Ranking first is enforcement of regulations to guard the composition and informative labeling of products used in special diets for the ill, the pregnant, the obese, the aged, the infant, etc., and to supplement selected staple foods with additional nutrients. Products are tested for declared vitamin potency.

The other broad area is combating false and misleading claims about the nutritive or therapeutic value of vitamins, minerals, or "health foods," by either written or oral promotion schemes. House-to-house canvassers are particularly prone to promise that such products will prevent or cure disease, since claims are made under conditions often difficult to monitor. Three such salesmen were fined for unwarranted claims last year.

Of the 60 vitamin or special dietary items seized, 13 were promoted by false and misleading medical claims, some for serious conditions such as heart trouble, epilepsy, diabetes, muscular dystrophy, tuberculosis, cirrhosis of the liver, Asian flu, and exposure to radioactivity. The longest list of claims of the year was used to promote a soy-germ and wheat-germ oil mixture. The labeling recommended it for 125 conditions, ranging from gangrenous ulcers and diabetes to quarrelsomeness, waddling gait, and middle-age spread.

Forty-three were seized because they contained less vitamin potency than labeled or failed to meet U. S. P. standards for injectables. Several large warehouses instituted systems calling for smaller inventories and the rotation of stocks after over-age products were seized or voluntarily destroyed. Four articles seized failed to bear the required information as to the sodium content or mineral supplementation claimed.

DRUGS AND DEVICES

Recalls.—Twenty defective or misbranded drugs were recalled by manufacturers during the year. Six antibiotics, 5 other drugs for human use, and 1 veterinary drug were below labeled potency, and an injectable vitamin B₁₂ contained double the amount declared on the label. Two were recalled to change the dosage directions, one because of a label mixup and the other because general use of a new drug disclosed side effects not apparent in earlier clinical reports.

Two recalled drugs contained fever-producing impurities. In an intravenous injection the emulsion had broken down. A hormone preparation had directions for intravenous instead of intramuscular injection. One product failed to bear the prescription legend which was a condition of its approval as a new drug.

Illegal Sales

Of 112 drug prosecution cases filed, 99 were based on violative sales of prescription drugs for self-medication and for nonmedical use. As in previous years, FDA investigations were made following reports of injuries caused by misuse of the drugs.

Investigations continued into illegal sales of amphetamine tablets at truck stops and how these drugs are being diverted from legitimate channels. Twelve truck-stop cases were included in the 102 illegal drug sale prosecutions terminated during the year. In addition, two cases were terminated and two others filed against medical practitioners charged with sales of large quantities of amphetamine tablets to FDA inspectors. In one case, an inspector made 4 purchases from a physician within a month, totaling 55,000 tablets. Convicted by a jury, the physician is appealing his 3-year prison sentence. In another case the court directed the jury to find the physician defendant

not guilty, although the defendant said in court that he thought the inspectors (who had made 3 purchases from him on the same day) were truck drivers. Four truck-stop peddlers and 11 druggists or their employees received jail sentences for illegal sales. Others received suspended jail sentences or were fined and placed on probation.

Adulterated and Misbranded Drugs and Devices

In July 1957 the head of the Hoxsey Cancer Clinic of Dallas, Tex., sought a court order to have the Secretary of Health, Education, and Welfare and the Commissioner of Food and Drugs recall thousands of "Public Beware" posters sent to post offices throughout the country warning consumers against his worthless treatment. In a second action he sought to enjoin these officials from administering the publicity sections of the law, claiming them to be unconstitutional. Both cases were dismissed in October, with a decision strongly supporting the Department's right to use publicity to warn the public against harmful practices even without the specific authorization given in the Food, Drug, and Cosmetic Act. In December he was enjoined by the State and leased the "clinic" to another man.

A third petition to enjoin the Secretary and the Commissioner was brought by the Hoxsey Cancer Clinic of Portage, Pa., to stop FDA investigators from interviewing patients who had visited that establishment. This was withdrawn in October, after the "clinic" stipulated to a permanent injunction, agreed to stop its pending appeal of the seizure sustained by a jury at Pittsburgh in November 1956, and to pay nearly \$14,000 of costs in the seizure trial.

A 1-hour television program exposing cancer quackery was presented on a nationwide broadcast in March, entitled "The Meanest Crime in the World." It was sponsored by an industrial firm which is noted for public service TV programs. Numerous groups are greatly assisting FDA in its educational program against cancer quackery. United efforts are required to combat the misinformation being spread by publications, speeches, and other propaganda promoting various cancer "cures." Some promotional schemes hide behind religious names and call for crusades of prayer—and cash donations—to help fight the "medical trust" they claim is dominating FDA. Others pose as philanthropic or scientific "foundations."

Of the 153 drug seizures, 65 were based on false and misleading claims and a number of others on failure of the label to give directions for the uses promoted by salesmen or collateral literature. Prompt action was taken in the fall and winter against a number of simple gargles and dietary preparations promoted for the prevention of Asian flu. Arthritis, circulatory disorders, and other chronic disorders of the aging are usually included among the claims of a large proportion

of the drugs seized. Diabetes, tumors, and various respiratory conditions are also frequently named in labeling.

Seven of the drugs seized were purported to be royal jelly preparations containing the material fed to queen bees. This, according to labeling claims, would provide added vim and vigor and rejuvenate the body. Some were further misbranded by direct claims for the cure of specific diseases, and for providing longer life and overcoming grave illness in persons of advanced age.

During the year Congress looked into the labeling and advertising of weight-reducing drugs and tranquilizers and members of FDA testified as to enforcement problems related to labeling claims.

Two drug injunctions were filed, one against shipments of herb tea and an ointment misbranded with false claims and inadequate directions for use. The second was based primarily on inadequate manufacturing controls that resulted in potent drugs deficient or excessive in active ingredients, and otherwise unreliable. The firm had been fined in 1957 but continued to ship undependable drugs. The injunction, granted just after the close of the fiscal year, sets forth in detail the facilities, including qualified personnel, that the firm must acquire and the procedures it must follow before it resumes interstate trade.

During recent years there has been a trend to drugs compounded so that after they are taken active ingredients are released over relatively long periods with continued effectiveness. Since these dosage forms ordinarily contain potent drugs, including stimulants and depressants, it is important that they disintegrate at the claimed rates to avoid overdosage and provide the desired effects. A number were seized in 1958 for inaccurate timing. FDA made available to quality control chemists in the industry a method its drug chemists have developed to test these timed-release drugs. Many visited FDA laboratories to observe the method in operation.

Two device injunctions were filed, both against previous offenders. One had been convicted in 1947 of misbranding a colored light projector for the treatment of all diseases. His "institute" promoted the machines through an elaborate system of "planets" whose members held meetings designed to sell the machines. When he was convicted, fined \$20,000, and placed on probation for 5 years, the institute was ordered dissolved and the literature (several tons) destroyed. When the 5 years ended he founded a new institute with a slightly changed name, built more machines, and resumed active leadership of local branches, renamed "studios." New literature bore substantially the same former unwarranted claims. FDA requested an injunction and from December on the operator was under temporary restraining order; a permanent injunction was granted in July 1958.

The second man had been enjoined in 1952 from shipping a worthless cancer diagnosis kit. In December he and two associated firms were enjoined from trafficking in a sound-wave device misbranded with claims for the treatment of inflammatory or circulatory conditions.

A 1954 temporary restraining order prohibiting shipment of a blood specimen for diagnosis and a number of different "electronic" devices for the treatment of almost any disease was made permanent in May.

Extensive promotion of vibrating devices for home use developed during the year and 11 lots of pillows, boxes, chairs, and mattresses were seized for false and misleading claims ranging from weight reduction and the relief of nervous tension and muscle strain to treatment of serious disease conditions. Vibrating devices may be soothing or relaxing but they are not disease cures or weight reducers.

New Drugs

During the fiscal year 435 new-drug applications, including 91 for veterinary use, were received; 348 applications including 68 for veterinary use were made effective, permitting the products to be marketed. In addition, 1,494 supplemental applications, including 444 for veterinary drugs, became fully or conditionally effective. No effective applications were suspended nor were any orders issued refusing to permit an application to become effective.

Among the drugs covered by the applications processed were: Four antibiotics for human therapy and two for use in veterinary medicine; an enzyme for the prevention and treatment of reactions to penicillin; seven drugs recommended for psychotherapy; a diuretic useful in the treatment of congestive heart failure and hypertension; a broncho-dilator for the treatment of asthma; two local anesthetics for dental use and one general anesthetic; the first intravenous fat emulsion designed for the nutrition of seriously ill patients; steroid compounds for the treatment of rheumatoid arthritis and other collagen diseases, and for gynecologic conditions; two products for relaxing skeletal muscle in spastic states and three for relaxing smooth muscle of internal organs and useful in the treatment of such conditions as peptic ulcer; two drugs for the suppression of cough; two for the relief of pain and one for itching; one product for the treatment of bacillary dysentery, and one for amebic dysentery; and an antihistamine, an anthelmintic, two cathartics, an antiseptic, and three drugs for fungus infections.

COSMETICS AND COLORS

Two cosmetics were seized, one under the drug provisions of the act, because it was falsely labeled as a tranquilizer. A public warning and recall were required for a nail treatment that seriously

damaged the fingernails after the plastic film was worn according to directions on the label.

Two seizures were made of food colors containing uncertified coal-tar dyes. A firm was fined and enjoined with its partners from further shipments of coal-tar colors made from uncertified mixtures and uncertified bronze powder sold for cake decorations.

CERTIFICATION SERVICES

Coal-tar colors.—All coal-tar colors used in foods, drugs, and cosmetics (except hair dyes) must be from batches certified as harmless by FDA. In 1958, 4,994 batches representing 5,976,392 pounds, were certified and 21 batches, representing 23,976 pounds, rejected.

Insulin.—All batches of insulin must be tested and certified before distribution. Examination of 371 samples resulted in the certification of 283 batches of 7 insulin drugs and 81 batches of materials for use in making insulin-containing drugs.

Antibiotics.—The predistribution testing and certification of certain antibiotics is also provided by amendments to the act. Examinations were made of 16,264 batches of penicillin, chlortetracycline, bacitracin, chloramphenicol, dihydrostreptomycin, streptomycin, tetracycline neomycin, nystatin, erythromycin, novobiocin, polymyxin, oleandomycin, and oxytetracycline during the fiscal year. The last 7 antibiotics are not included in the certification amendments, but are tested when they are mixed with those requiring certification. Twenty-one batches were rejected for failing to meet the following standards: Potency (15), sterility (3), purity (2), and moisture (1). In addition, manufacturers withdrew their requests for certification of 12 batches because they were substandard.

Enforcement of Other Acts

A total of 103,266,609 pounds of tea was examined under the Tea Importation Act. Rejections for failure to measure up to the standards set by the United States Board of Tea Experts totaled 92,184 pounds, or 0.089 percent. Three rejections were appealed to the United States Board of Tea Appeals which upheld the decision of the FDA examiner in two cases and sustained the appeal in one.

Four shipments of a bowl cleaner were seized for failure to bear the word "poison" as required by the Caustic Poison Act. A fifth seizure involved a photo chemical containing more than 10 percent sodium hydroxide which was not labeled "poison" and did not give adequate directions for treatment in case of accidental personal injury.

No permits were issued for importations of milk from Canada, nor were any actions instituted under the Filled Milk Act.

New Court Interpretations

Only two petitions for certiorari were filed with the Supreme Court during the fiscal year. The Court denied a petition filed by a physician to review his conviction for selling amphetamine drugs without a prescription. This establishes the criminal liability of a licensed physician for selling dangerous drugs outside the recognized scope of medical practice.

The Supreme Court accepted the Government's petition to review the decision of the United States Court of Appeals for the Fifth Circuit in which it set aside the Secretary's Order delisting FD&C Red No. 32 as a permitted food color and held that FDA has authority to establish tolerances for colors. This case is pending.

The Court of Appeals for the Seventh Circuit reversed the district court's decision awarding pre-seizure costs in a libel action and held that such costs are not assessable against the Government particularly where there is a reasonable basis for the seizure.

Two decisions by the Court of Appeals for the Eighth Circuit involved a seizure of mineral water that has been pending since 1953. In the first decision the court reversed the jury verdict and held that the water was misbranded because it failed to comply with the dietary food regulations. The district court entered a decree contrary to that decision and at the Government's request the circuit court set aside the decree of the lower court.

The Court of Appeals for the District of Columbia ruled that the Government could not refuse to permit relabeling of a condemned drug preparation with the name "Buticaps," where the falsity of the name had not been adjudicated, since the claimant was entitled to a judicial hearing on the meaning of the word.

A district court judge in the District of Columbia denied a petition for an injunction to prevent the distribution of a poster warning against a worthless cancer cure, as discussed under drugs.

A district judge ruled that the amendment covering the sale of oleomargarine applies only to retail packages.

A district court denied a petition for an injunction to restrain the Government from making multiple seizures of a new drug.

A district court ruled that a corporation cannot claim privilege against self-incrimination for refusing to answer interrogatories since the corporation can appoint an officer or agent to answer the interrogatories. The claimant said he will appeal this decision.

Changes in the Law and Regulations

One of the most significant advances in public health protection under the Food, Drug, and Cosmetic Act in the last two decades was

the passage of the food additives amendment (Public Law 85-929) the last day of the 85th Congress.

Hearings before a Select Committee of the House, beginning in 1950, produced evidence that the 1938 act was inadequate to cope with changes in food production since the end of World War II.

The amendment provides that the manufacturer or promoter of a new additive submit the results of tests to establish its safety to FDA. The Secretary will issue regulations for those found safe under proper conditions of use, specifying the amount that may be used in certain foods, and other conditions necessary to protect public health. If the additive is not established as safe in the opinion of FDA, its use will not be permitted. No additive may be used that would promote consumer deception or serve to adulterate or misbrand the product. The Secretary shall not fix the amount of the additive which may be used at a higher level than required to produce technical effects intended, or permit its use if it will not accomplish this purpose.

Public administrative hearings will be held when requested by any person adversely affected by an order of the Secretary. Any order issued after such a hearing will be subject to review by a Circuit Court of Appeals.

Petitions may be submitted any time after enactment of the law on September 6. The requirements go into effect on March 5, 1959. Industry will have 18 months to obtain clearance by the regulation procedures for substances already in use before January 1, 1958, and not generally recognized by experts as safe.

This new law provides two major benefits for consumers. First, it safeguards against the use of inadequately tested additives. While most sponsors of new food additives made the necessary tests first and checked with FDA before adopting new substances, some did not—and the law did not require it. The product could be marketed without safety tests or before long-term tests were completed; the Government could not remove foods containing such additives from the market until it could prove in court that the additive was unsafe.

The second benefit to consumers is that the new law makes way for advances in food technology. The additives used are to improve the food and bring it to the housewife in better condition and a more convenient form. The amendment removes unnecessary restrictions on many useful chemicals that are perfectly safe if properly used.

REGULATIONS

Drugs.—The following drugs were exempted from prescription-dispensing requirements and permitted to be sold with labeling for lay use: Preparations containing pramoxine hydrochloride, a local anes-

thetic for external application to the skin; preparations containing carbetapentane citrate, an anti-tussive; preparations of pamabrom with an analgesic for use in the temporary relief of minor pains and discomforts of the premenstrual and menstrual periods; and preparations of diphemanil methylsulfate for external application to relieve minor skin irritations.

The list of habit-forming derivatives of substances named in section 502 (d) of the act was revised to designate the drugs by official or common names in addition to proprietary names.

Four hundred and fifteen amendments and 31 new monographs were added to the antibiotics regulations.

Semi-lente insulin and ultra-lente insulin were added to the list of certified insulin drugs, bringing the total to 7.

Food Standards.—A proposed order setting forth detailed findings of fact and identity standards for ice cream, french ice cream, fruit sherbets, and water ices was published in March 1958. This proposed order was based on 22,000 pages of testimony given in two hearings held before passage of the Hale Amendment. The order provides safeguards against methods that might be used to cheapen ice cream and ingredients not adequately tested for safety.

All other food standard proposals during the year were governed by the Hale Amendment procedure, which requires hearings only on controversial issues of proposed food standards. A standard for prickly pear jelly was promulgated based on a manufacturer's proposal on which no adverse comments were filed. The prune juice standard was amended to permit the addition of from 2 to 3 percent of honey to prune juice with appropriate label declaration. This order was based on the record of a hearing held the previous year on the objection filed to the standard of identity for prune juice because it did not provide for the optional use of honey.

A standard was established for enriched rice requiring thiamine, niacin, riboflavin, and iron, the same enriching ingredients required in the standards for other enriched cereal products. A stay was required as to riboflavin because objections were filed, and a hearing will be held to determine this issue. All of the other parts of the standard became effective in March.

Two hearings on food standard orders were held on which final orders have not issued. One involved proposals to establish identity standards for mozzarella and part-skim mozzarella cheeses. The other resulted from objections raised to two of the labeling provisions in the canned tuna standard; other provisions are in effect.

Pesticides.—During the year 403 permanent tolerances or exemptions were established involving 26 pesticide chemicals for raw agricultural commodities, and 36 temporary tolerances were established

involving 9 pesticide chemicals. Since the enactment of the Pesticide Chemicals Amendment, a total of 1,940 tolerances or exemptions have been established for 98 pesticide chemicals.

Because of the special place of milk in the diet of infants, children, the sick, and the aged, FDA requested the National Academy of Sciences to select an advisory committee to consider a request for a tolerance for methoxychlor in milk. The committee found that the data on safety were inadequate to justify the establishment of a tolerance which would permit residues of methoxychlor in milk, and a zero tolerance was announced.

In 1955 a tolerance of 1 part per million was established for Aramite, a miticide, following recommendations of an advisory committee which reviewed the petition for such tolerances. On the basis of new evidence which showed that long-term feeding of Aramite caused cancer in two species of test animals, a proposal was published to revoke the 1 ppm tolerance and establish only zero tolerances for Aramite. The company which originally petitioned for this tolerance has requested that the proposal be referred to another advisory committee to be selected by the National Academy of Sciences.

Scientific Investigations

The seven Divisions comprising the Bureau of Biological and Physical Sciences are engaged in a broad range of scientific studies to develop or improve methods of analysis, to evaluate safety of pesticide residues and food additives, to develop effective specifications for certifiable antibiotic preparations, insulin, and coal-tar colors, to provide a sound scientific basis for administrative policies, and to improve certification enforcement and procedures.

"Performance methods" were developed for the control of antibiotic diagnostic disks, containing various concentrations of 16 antibiotics. Since these disks are used by physicians to determine which antibiotic or combination of antibiotics will be effective for use in treatment, it is important that they be dependable and accurate. A survey indicated need for improvement in their manufacture and control. A meeting of industry representatives was held and steps are being formulated to improve the products and their specifications.

Studies on antibiotics included work on a number of products to determine the validity of manufacturers' claims; over 14,000 blood specimens were assayed for antibiotic activity. In collaboration with the Department of Agriculture a fluorescent dye marker was incorporated in 10 lots of antibiotic mastitis preparations. The effect of the dye on antibiotic stability was studied as well as its utility in showing the presence of residual amounts of antibiotics in the milk of treated cows.

Infrared spectrophotometric methods of analysis were devised for several important drugs including cortisone, hydrocortisone, reserpine, atropine sulfate, nitroglycerine, and other organic nitrates. Paper chromatographic methods were developed for detecting impurities in cortisone, hydrocortisone, and other drugs.

A comprehensive survey of frozen precooked foods was started to study the application of bacteriologic methods in controlling sanitation in their manufacture, in coordination with investigations conducted by industry and State control officials.

Research was continued in the study of methods for detection and identification of *Salmonella* and for *Staphylococcus* and its toxin, organisms frequently associated with food-poisoning episodes.

Progress was made in studies of insect-fragment identification, to enable identification by microscopic analytical methods of contaminants in foods related to insanitation in production.

The development of methods of analysis for detecting and measuring pesticide chemical residues on raw agricultural products continues to be important. Most pesticide chemicals now in use fall largely into two general groups: Chlorinated hydrocarbons, the organic phosphate compounds, or mixtures. Because of their high toxicity, the tolerances for some of these compounds are quite low and very sensitive methods of analysis are required to insure compliance. In addition to methods based upon classic principles of analytical chemistry, others developed are based on biochemical phenomena, such as the use of enzymes, and biologic assays with the common housefly as the experimental animal.

To study the efficiency of the analytical procedures for residues from food crops, a study was carried out with a pesticide chemical tagged with radioactive Carbon 14. The procedures were found adequate in detecting and measuring the residues.

The safety of a proposed tolerance for pesticide chemicals on forage crops involves not only the safety of the chemical to the animals but also the possibility of residues in the food products of the consuming animals—such as meat, milk, and eggs. In cooperation with the Department of Agriculture dairy animals were fed forage containing small amounts of heptachlor, one of the chlorinated hydrocarbon pesticides, to determine whether this chemical or its breakdown products appear in the milk. The data are still under study.

Work was successfully completed in the development of a physicochemical method for assay of vitamin D, which will replace the expensive and time-consuming biologic method for many purposes.

The protective actions of 13 tranquilizers against alkaloidal convulsions in mice were investigated to develop methods and procedures for evaluating and classifying claims for efficacy as a tranquilizer.

Preliminary studies were completed on procedures for testing possible carcinogenic activity of food additives.

A 2-year feeding study with rats on the effect of atomic-blast-irradiated foods was completed during the year. Thirty-six animals received the exposed food and a like number were used as the controls. Detailed microscopic examination of the rat tissues showed no effect, either deleterious or beneficial, from irradiation of the food.

In the latter part of 1957 reports were received that a mysterious disease was causing large losses of birds in the broiler industry. Investigations have revealed that the disease was caused by a toxic material in a fat byproduct used in several brands of commercial feed. High-energy feeds utilizing added fats have become popular and are widely used in the poultry industry to induce more rapid growth. Residues from production of fatty acids had been used by several feed producers as part of the fatty material incorporated in poultry feed, and investigation revealed that this was the source of the toxic substance. Intensive studies have been undertaken to identify this substance and develop methods of assay. This work is not yet complete but success has been achieved in preparing a concentrate of the toxic substance. The disease has been produced in poultry experimentally with as little as 3 milligrams of this concentrate in 100 grams of ration.

Some progress was made during the year in equipment replacement and modernization.

The Bureau of Medicine conducted clinical studies of the absorption of tetracycline when combined with various other drugs. Sodium metaphosphate, citric acid, and glucosamine were found to enhance absorption and produce higher blood concentrations, while calcium carbonate and other binders and excipients interfere with absorption. The properties of kanamycin, a new antibiotic, and repository penicillin were also tested clinically. The results indicated proper dosage schedules.

Other clinical studies were made to evaluate the claims of drugs and devices. Veterinarians collaborated in the studies on antibiotics in milk and the toxic poultry feed reported earlier in this chapter.

The pilot study on the reporting of adverse reactions to drugs is continuing, with 11 hospitals participating.

Enforcement Statistics

The 26,063 establishment inspections conducted by FDA were divided into 21,683 for foods, 3,701 for drugs and devices, 444 for cosmetics and colors, and 235 for miscellaneous products including caustic poisons. Of 25,269 domestic samples collected, 15,745 repre-

sented foods, 9,011 drugs and devices, 353 cosmetics and colors, and 160 miscellaneous.

In the 200 criminal actions terminated (or terminated for some defendants) in the Federal courts during 1958, fines assessed totaled \$138,282. Jail sentences ranging from 1 month to 3 years were imposed in 35 cases involving 38 defendants. Eighteen individuals were required to serve imposed sentences, averaging 9 months; they were suspended for 20, on condition that violative practices be discontinued. Records of actions terminated in the courts were published in 490 notices of judgment.

Table 2.—Number of samples on which criminal prosecutions and seizures were based and number of court actions instituted during the fiscal year 1958

| Item | Total | | Criminal prosecutions instituted | | Seizures accomplished | | Injunctions requested |
|---------------------------|--------------------------------|---------|----------------------------------|---------|-----------------------|---------|-----------------------|
| | Violative samples ¹ | Actions | Violative samples | Actions | Violative samples | Actions | |
| Total..... | 2,603 | 1,252 | 891 | 203 | 1,712 | 1,027 | 22 |
| Foods..... | 1,591 | 932 | 296 | 91 | 1,295 | 824 | 17 |
| Drugs and devices..... | 999 | 310 | 595 | 112 | 404 | 194 | 4 |
| Cosmetics and colors..... | 6 | 5 | ----- | ----- | 6 | 4 | 1 |
| Caustic poisons..... | 7 | 5 | ----- | ----- | 7 | 5 | ----- |

¹ The number of samples on which the actions are based always exceeds the number of actions; in seizures a variety of articles may be contained in a single shipment, while in criminal actions each sample usually represents a single shipment which forms one count of the action.

Table 3.—Import samples collected, examinations made, and lots detained during the fiscal year 1958

| Item | Samples collected | Examinations made | Lots detained |
|---|-------------------|-------------------|---------------|
| Total..... | 9,200 | 14,614 | 4,980 |
| Foods..... | 6,876 | 13,704 | 2,687 |
| Drugs and devices..... | 2,192 | 799 | 2,117 |
| Cosmetics, colors, and miscellaneous..... | 132 | 111 | 176 |

Office of Vocational Rehabilitation

Services to the Disabled Expand Through Enlarged Research Program and Attack on Severe Disability

THE NUMBER of handicapped persons prepared for employment and placed in jobs through the public program of vocational rehabilitation in 1958 ¹ set a new record for the third consecutive year.

The total of 74,317 rehabilitated was 4.8 percent greater than in 1957. Despite the economic uncertainty during the spring and summer of 1958, marked by shutdowns and layoffs, 34 of the 53 general State rehabilitation agencies showed increases over the previous year, and 18 of the 37 agencies for the blind also reported gains.

An additional 18,584 disabled persons were prepared for employment through the public program, but had not found jobs at the end of the fiscal period.

The steady progress of the State-Federal program is not measured entirely in numbers. It is evident in other ways, and is no more striking anywhere than in the research activities, which, along with other revitalizing provisions, were made possible through Public Law 565 in 1954.

Research into the problems of disability is the only window through which there comes a clear picture of what has happened in rehabilitation, as well as a view of the nature, directions and requirements of the rehabilitation program in the coming years.

Since the research and demonstration program was inaugurated in 1955, a total of 352 applications have been considered by the National Advisory Council on Vocational Rehabilitation. Of these, a

¹ Unless otherwise indicated, all subsequent references to 1958 will be to the fiscal year, that is, to the period between July 1, 1957 and June 30, 1958.

total of 177 in 38 States, the District of Columbia, and Puerto Rico have been recommended to the Secretary, and grants awarded.

Out of 153 such requests received during 1958, approval was given to 81, and grants were awarded in a total amount of \$1,972,667.

The grants included those in the regular research and demonstration program, of which there were 51. Twenty-eight of these were from universities, medical schools and research organizations, thus bringing closer to realization a basic purpose of the invigorated program—to enlist and foster the talents, energies and resources that are in all parts of the country that can be focused on solution of rehabilitation problems that are common to all.

The remainder of the projects approved during the year were in a new category—a series of demonstration projects in many parts of the country to apply knowledge gained from research to those within selected categories of disability.

The Office of Vocational Rehabilitation announced at the beginning of the fiscal year that it would give priority to demonstration projects that would provide services to the mentally retarded, cerebral palsied, disabled persons with emotional problems, epileptics, the homebound disabled, the blind and visually handicapped, disabled workers over 50 years of age, and the chronically ill. There were three major purposes: to accelerate services to these groups, to provide widespread application of knowledge and experience acquired through research, and to test application of the research findings under varying circumstances in different parts of the country.

During the first year of these special demonstration projects there were established a total of 30 in 22 States. Each was designed to duplicate the research projects in which there had been developed successful techniques for the rehabilitation of severely handicapped persons in the same category. All of the selected categories were represented, and the Office will continue the program along these lines until there is more complete representation in categorical and geographical distribution.

Another gratifying phase of the regenerated program of vocational rehabilitation in 1958 was the expansion of community resources toward the creation of rehabilitation facilities. Many communities, recognizing that the comprehensive rehabilitation center is the most practical and complete means of constructive aid for their handicapped people, were showing increased interest in centers that provide in addition to medical and physical restoration services, such vocational services as prevocational evaluation, vocational counseling, sheltered employment, and vocational training.

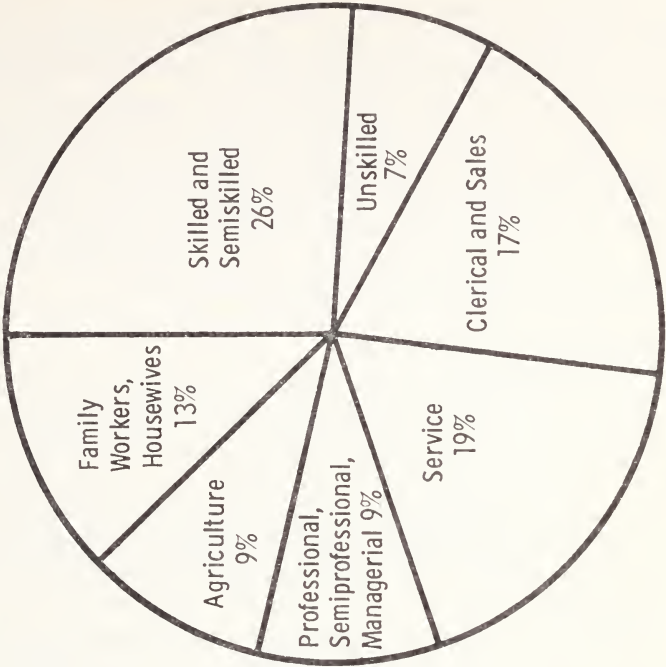
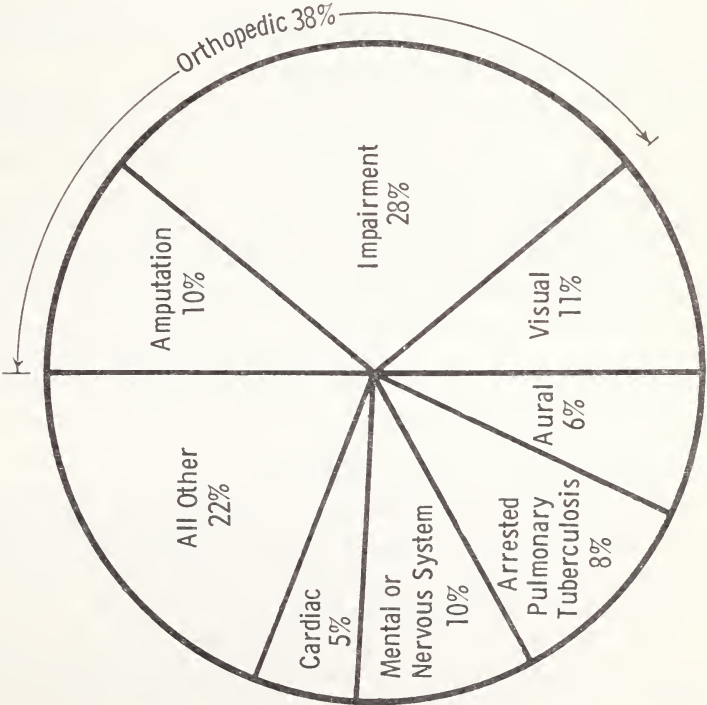
In the 3-year period ending with fiscal year 1958, a total of 82 rehabilitation facility projects were approved for construction under

Chart 1.—DISABILITIES AND MAJOR OCCUPATIONAL GROUPS

Percent of rehabilitants, by types of disability at acceptance and by major occupational group at closure, fiscal year 1958

DISABILITIES

MAJOR OCCUPATIONS



the Medical Facilities Survey and Construction Act—20 of them in 1958. Their total cost was more than \$60.4 million, of which local sponsors contributed about \$47 million. In addition, Federal aid was extended to a number of rehabilitation centers under Public Law 565. And, as a measure of the increasing utilization of rehabilitation adjustment centers, the number of handicapped persons referred to them by State agencies in 1958 increased over three times the number referred in 1955, and the amount spent in rehabilitation facilities by State vocational rehabilitation agencies for benefit of handicapped persons was two and a half times the 1955 total.

REHABILITATIONS IN 1958

In the new record of 74,317 handicapped persons restored to useful activity and established in employment by the State vocational rehabilitation agencies in 1958, the major types of disability continued to be orthopedic impairments—amputations or other crippling conditions. About 38 percent (or 28,551) of the rehabilitants had this type of handicap, and, of these, about three-fifths were injured in accidents, and about one-fifth were handicapped by poliomyelitis, osteomyelitis, or arthritis.

Referrals came from many sources, but the largest proportion (33 percent) was from physicians, health agencies, or hospitals. Another 14 percent were referred by public welfare agencies, and 7 percent by State employment service offices. About 12 percent applied for services on their own initiative.

More than half of the rehabilitants of 1958 had dependents, and 63 percent were men. The average age at the time of disablement was 27, but the average age at the time the rehabilitation process was started was 36.

The occupations in which rehabilitants were placed in 1958 included nearly all types of work. The proportions employed in the major occupational groups remain similar to those in recent years—skilled and semiskilled workers, 26 percent; clerical and sales, 17 percent; service workers, 19 percent; family workers and housewives, 13 percent; professional, semiprofessional and managerial, 9 percent; agriculture, 9 percent; and unskilled, 7 percent.

ECONOMIC VALUE OF THE PROGRAM

The extent to which the public vocational rehabilitation program can improve the economic status of handicapped persons, increase the Nation's productive potential, and relieve some of the dependency upon public assistance was strikingly shown in 1958.

About 53,700 of the 74,317 handicapped persons prepared for and placed in employment during the fiscal year were unemployed when their rehabilitation began. The group that had been working

at the time they were accepted for service were earning at the rate of \$23.3 million a year and generally were employed in unsafe, unsuitable, or part-time work. In the first full year of employment for the entire group, it is estimated that they will have earnings at the rate of \$144.2 million.

Nearly 15,000 of those who were rehabilitated received public assistance at some time during the process, at the estimated rate of \$13 million a year. The estimated total cost of the rehabilitation of these persons was about \$13 million.

It is estimated further that those who were established or placed in employment through the public rehabilitation program will pay during the remainder of their working lives, about \$10 in Federal income taxes for every Federal dollar invested in their rehabilitation, so that the conversion of so many persons from tax consumers to taxpayers is of pronounced economic benefit to the Nation.

Demonstration Projects in Selected Categories of Severe Disability Apply Research Findings

The research and demonstration program, through which Federal funds are made available for partial support of a wide variety of projects which hold promise of contributing to the solution of vocational rehabilitation problems, was characterized in 1958 by sharp increases both in the number of applications received and those approved. It was also the first year of a program of demonstration projects in selected categories of severe disability, in which the knowledge emerging from research is given practical application.

Eighty-one new research or demonstration projects were approved during the year, bringing the number of projects activated since the beginning of the program in 1955 to a total of 177. The total of grants for the first year of support for the 81 projects was \$1,972,667. An additional \$1,626,932 was provided for continuation of 60 previously initiated projects, so that the total of Federal grants for research and demonstration during 1958 was \$3,599,599.

Applications for research and demonstration projects are accepted from universities, State vocational rehabilitation agencies, other public agencies and private nonprofit organizations, and are reviewed by the National Advisory Council on Vocational Rehabilitation. The Council, appointed by the Secretary, is composed of 12 persons whose connections with rehabilitation, labor, business, medicine, and related fields give them authoritative standing. Miss Mary E. Switzer, Director of the Office of Vocational Rehabilitation, is Chairman.

There was a considerable broadening in the variety and scope of the projects submitted and approved during the year, reflecting a heightened interest among the creative research talent in universities, medical

facilities and research organizations, and the selected demonstration program provided a new phase for the program.

SELECTED DEMONSTRATIONS

The new program of selected demonstration projects was announced at the beginning of the year. Its purposes were to accelerate services to the severely disabled and to provide for prompt application of new knowledge and experience acquired under the research program.

There was immediate response. Thirty projects were approved, and are in operation in 22 States, permitting the testing of research findings under varying circumstances in different parts of the country, and a broad attack on several forms of severe disability.

So that there will be as wide and equitable distribution of projects as possible, only one type of project is presently allowed in each State. Five States, however, have two or more projects in different categories. Of the total amount awarded for new projects in 1958, \$712,750 was for the first year of the selected demonstration projects.

The grants are concentrated primarily in seven categories. Eleven of the 30 projects are occupational training centers for the mentally retarded. Six others are optical aids clinics to enhance opportunities for employment for persons with low visual acuity. Four are work adjustment centers for disabled persons with emotional problems, three are work classification and evaluation centers for the cerebral palsied, and three more are providing vocational adjustment and other rehabilitation services for disabled persons confined to their homes. Two more are occupational adjustment centers for persons severely disabled by epilepsy. One other project has as its goal the determination of the vocational rehabilitation potential of chronically ill persons in hospitals, and provides such services as are necessary to return these individuals to productive work.

All of these projects are based upon successful prototype research projects that have been assisted under the program. The selected demonstration program will continue to be expanded. The goal will be at least one such project in each State, with effective distribution among the various categories in all States and regions.

RESEARCH AND DEMONSTRATION

The 51 projects approved during the year under the regular research and demonstration program cover a wide range of disabilities. Six projects are concerned with the mentally ill, alcoholism, or persons with personality problems. Nine are concerned with speech and hearing, including aphasia, cleft palate, laryngectomized speech, and stuttering.

Six more are in the broad area of employment and workmen's compensation, including services to the disabled over 60 years of age,

and to paraplegics and epileptics. Others deal with blindness, the problems of disability in rural areas, and four projects are concerned with the problems of amputees, the development of externally powered orthopedic devices, and a survey of the field of assistive or adaptive appliances for the orthopedically handicapped. Still others deal with problems of administration among the States, and with development of methods of concerted community action in meeting rehabilitation needs.

The rapid growth of the program is shown by the fact that in 1955, the first year it was operative, 18 projects were initiated in eight States and the District of Columbia. Today there are projects in 38 States, the District of Columbia, and Puerto Rico.

Training Program Grows With Emphasis on Medicine, Speech-Hearing Therapy, Prosthetics, and Counseling

The program of training grants experienced a marked upswing in 1958, for available funds increased by about 50 percent from \$2,950,000 in 1957 to \$4,400,000 in 1958. With this increase, it has been possible to accelerate the attack on the serious personnel shortages that exist in all professional fields directly concerned with rehabilitation of the disabled.

Teaching grants to colleges, universities, and other institutions numbered 177 in 1958, as compared with 112 in 1957, and totaled nearly two million dollars. These grants enabled educational institutions to expand or strengthen their instructional resources in the fields of medicine, nursing, occupational therapy, physical therapy, prosthetics education, rehabilitation counseling, social work, speech and hearing, and other fields closely related to rehabilitation.

Traineeship grants to educational institutions made scholarship assistance available to over 950 full-time students enrolled in basic or advanced training programs in the professional fields contributing to rehabilitation.

REHABILITATION MEDICINE

Because the physician is a key person in the rehabilitation of persons disabled by chronic illness, injury, or congenital condition, major emphasis has been placed upon strengthening the teaching of rehabilitation principles and practices to undergraduate medical students. Nineteen medical schools received teaching grants to expand that aspect of their curricula in 1958, so that all graduating physicians would have a basic understanding of rehabilitation. Another related area of major interest has been the support of physicians during their residency training in physical medicine and rehabilitation. Since July 1, 1955, when the Office of Vocational Rehabilitation as-

sumed responsibility for this program, 189 physicians have received OVR traineeships. At the end of the fiscal year, 109 physicians were still in residency training programs with financial assistance from OVR.

Initiation of grants in the field of speech and hearing therapy was a significant accomplishment in 1958. Grants were made to seven universities to help them give better preparation to graduate students who will work with adults who are handicapped by speech or hearing disorders.

COUNSELING

Continued progress is being made in the graduate rehabilitation counselor training programs established in 30 colleges and universities. About 500 students in those programs received OVR traineeships in 1958. In the absence of a professional association or accrediting body concerned with the nature and quality of professional education in this new field, OVR has encouraged periodic meetings of the directors of the rehabilitation counselor training programs. The second annual workshop was held in Cleveland, in April, with the 3-day program focused principally on problems of supervised field work.

In addition to support of year-round academic training programs for professional personnel, OVR has helped to finance nearly 70 short-term training courses in various aspects of rehabilitation. These courses are intended to raise the level of knowledge and skill for vocational rehabilitation personnel and those in related agencies, so that services may be of higher quality. Over 2,500 persons have been reached through these short-term courses.

The prosthetics education courses have been attended by large numbers of physicians, surgeons, physical and occupational therapists, rehabilitation counselors and prosthetists who were seeking training in serving the amputee more effectively. Other short courses have been concerned with esophageal speech for laryngectomized patients, rehabilitation of persons who have suffered cerebrovascular accidents, of the mentally retarded and the cerebral palsied, and of discharged mental hospital patients.

The Office's continuing concern for raising the level of performance of the staffs of State vocational rehabilitation agencies has been expressed in a variety of ways: (1) through a series of in-service training grants to State agencies to assist them to organize continuing and comprehensive staff development; (2) conducting orientation courses for newly employed counselors and advanced courses in counseling or other aspects of vocational rehabilitation for experienced counselors; (3) providing seminars on administration for State executive personnel; (4) developing plans for a nationwide program of super-

visory training for State agency supervisors; and (5) conducting a course for State medical consultants on administrative and program development.

Increased State-Local Support Brings a Greater Number and Usefulness of Rehabilitation Centers

Each year more States and communities become interested in establishing rehabilitation centers that offer, in addition to medical and physical restoration services, other essential services for vocational rehabilitation.

Funds for centers come from various sources, including the 1954 Medical Facilities Survey and Construction Act (Hill-Burton), the Office of Vocational Rehabilitation, State vocational rehabilitation agencies, State appropriations, and private or community resources.

In 1958, 20 projects in 19 States received grants for the construction of rehabilitation facilities under the Medical Facilities Survey and Construction Act. Federal grants of \$2,134,317 for these projects were matched by approximately \$8,185,835 of sponsor's funds, making a total of \$10,320,152 obligated during the year.

This brought to a total of 82 the projects that have been approved for assistance under this Federal legislation. The total cost was \$60,430,458, of which the Federal share was \$13,453,440.

Of the 20 projects approved during 1958, two are located in medical schools or teaching hospitals, four are in general hospitals, three in specialized hospitals, four are community type centers, and seven are single disability centers.

Federal aid to rehabilitation centers under provision of Public Law 565 was granted to specialized facilities providing improved or special services to such disability groups as the mentally and emotionally ill, blind, epileptics, homebound disabled, cerebral palsied, and others. Federal funds of about \$1,500,000 were available to these projects, matched by expenditures of almost half as much in State or local funds.

Many new centers are in operation or under construction. A Goodwill Industries establishment in Cincinnati has opened a new million-dollar vocationally oriented center that is serving a large surrounding area. A comprehensive center was dedicated in Mobile, Alabama, in the spring of 1958, to serve that State, and nearby areas of Mississippi and Florida. Pennsylvania's new 8-million dollar center is nearing completion. The center operated by the West Virginia agency was enlarged during the year to almost double its capacity, and Puerto Rico has completed plans for a 100-bed, vocationally oriented center as part of a large medical center in San Juan.

The growing importance of rehabilitation centers in physical restoration and vocational preparation of disabled persons is reflected in the number of persons referred to rehabilitation centers by State vocational rehabilitation agencies, and the amount of money they paid to centers

In a 4-year period, the expansion was on this order :

| | Persons receiving services | State funds expended |
|-----------|----------------------------------|-------------------------|
| 1955----- | 2, 436 | \$857, 666 |
| 1956----- | 5, 088 | 1, 453, 984 |
| 1957----- | 6, 874 | 2, 141, 784 |
| 1958----- | 8, 326 | 2, 676, 356 |

The provision of services in a rehabilitation center does not always result in rehabilitation into employment, though generally this is the aim, where service there is purchased by a vocational rehabilitation agency. An amputee may go to a center to learn how to walk, properly and efficiently, with an artificial limb or how to use an artificial arm. In such cases the stay in the center is short and the results immediate. An older person stricken by paralysis, accompanied by speech impairment, may receive intensive treatment that frequently brings resumption of normal living habits and productive work. A crippled child may find opportunity to prepare for a useful life through early provision of services.

In a study completed in June 1958 by the Conference of Rehabilitation Centers—composed of executives of most of the principal centers over the country—a cross-section of 57 representative centers reported services to 59,118 disabled persons in a 12-month period. They had a combined operating budget for the period of almost \$16 million, and employed 1,250 professional workers. A composite of their estimates covering the ensuing five years revealed their expectations of a total annual operating budget which would expand by 55 percent, to \$43 million, with the number of persons served growing 63 percent to 88,500.

To assist rehabilitation centers in dealing with their operating problems and to help communities that are planning rehabilitation centers, the Office, in cooperation with the Conference of Rehabilitation Centers, has prepared a new publication "Rehabilitation Centers Today" describing in detail the operating programs of 77 rehabilitation centers.

SHELTERED WORKSHOPS AND PROGRAMS FOR THE HOMEBOUND

With the rehabilitation of more and more disabled persons each year, there is a corresponding increase in the number who require

sheltered workshop services—which include training under simulated industrial conditions—as a prelude to competitive employment, and in the number whose condition at the time requires sheltered employment for a period.

To expand and improve programs and facilities for sheltered or home employment, the Office, in conjunction with the National Rehabilitation Association and the National Association of Workshops and Homebound Programs, held two Institutes in 1958. Attendance was on a selective basis from State agencies and from workshops.

Of particular importance were the findings and recommendations of the National Institute on the Role of the Workshop in Rehabilitation, held in April. A comprehensive report of the Institute has received enthusiastic acceptance from several thousand persons concerned with the use and operation of workshops in rehabilitation, and is leading the way to preparation of other criteria and guides for operation and utilization of such workshops.

Programs for the homebound received increasing attention also during the year. This category of the disabled is one of those selected by the Office for inclusion in the selected demonstration program.

Three such projects for the homebound disabled were initiated during 1958. The Boston (Mass.) Dispensary is demonstrating how provision of vocational rehabilitation services in a community home care program for the chronically ill can be effective. Projects in Arkansas and in New Mexico are demonstrating the value of industrial homework programs for the disabled who are confined to their homes.

The beneficial effects of a program for the homebound is illustrated by the activities of the Alabama Society for Crippled Children and Adults. This organization is well into a demonstration project to show how the development of an organized marketing program for products made by the homebound disabled can increase employment opportunities for them.

The products made by the homebound disabled who are in this project—toy and gift items made of wood, fabric and metals—are sold nationally, bringing satisfactory returns under the organized methods that have been formulated.

Rehabilitation Services for the Aging Assuming Importance as OASI Referrals Continue To Rise

The increasing number of older persons in the population is giving rising importance to the provision of vocational rehabilitation services for the aging.

This aspect of the rehabilitation program is given pointed significance by two facts. First, the number of rehabilitated persons over 45 years of age increased from 18 percent of the total in 1945 to 31

percent in 1958. Second, the State agencies in 1958, assuming responsibility for a much greater portion of the disability determinations that are made in the cases of those individuals who apply to the Social Security Administration for disability benefits, found the median age of those so referred to be 58.1 years.

State agencies make assessments of the rehabilitation potentialities of individuals in this group, so that, through provision of rehabilitation services, as many of them as possible may be returned to gainful employment.

During 1958, the 47 States or Territories that have working agreements with the Bureau of Old-Age and Survivors Insurance made approximately 278,000 initial disability determinations, compared to 155,000 in 1957; screened more than 360,000 for rehabilitation potential, compared to 154,000 in 1957, and accepted over 42,000 for further consideration for rehabilitation compared to 19,000 in 1957.

These actions are taken in accordance with provisions of the Social Security Act, whereby disabled persons of any age may make application to have their benefit rights protected during periods of disability; and persons 50 years of age or over, and dependent children of deceased or retired workers entitled to OASI benefits may make application for each disability benefit. For disabled persons to qualify for disability benefits under the Social Security program, there must be a finding by the State agency that they are unable to engage in substantial gainful employment.

Mental Illness

There was continued reflection during 1958 of the Nation's increased awareness that mental illness is one of the major health problems of the country. There was further strengthening of the united front that is combatting mental illness, in which the Office is playing an increasingly conspicuous role.

The Office joined with the National Institute of Mental Health of the Public Health Service, and a University in each of two Departmental Regions during the year, in sponsoring conferences and workshops for mental health personnel in State governments, in State mental hospitals, and vocational rehabilitation staffs from State agencies.

Personnel from these sources in all of the Department's Regions now have had participation in one of such workshops. These opportunities to share experiences and to plan together for new services for the mentally ill are reflected in greatly accelerated activity in a variety of rehabilitation programs for this group.

One State agency now is operating three "half-way houses" for patients discharged from its mental hospital, where they learn to live

again as members of the community while learning a trade, and get assistance in finding employment.

A notable improvement in rehabilitation of the mentally ill is the development of vocational training programs in a number of State mental hospitals. Equally important is the fact that in nearly all of the States, special counselors are assigned to work exclusively with State mental hospitals.

Services to the Blind

A segment of the disabled population of the country for whom not enough has ever been done received significant attention during the year. The first major attempt at rehabilitation of those who are both deaf and blind was begun with completion of a study of the possibilities and methods of rehabilitating persons within this group. The study was conducted by the Industrial Home for the Blind of Brooklyn, New York, with the aid of a research grant from the Office of Vocational Rehabilitation. In addition to its own experts, the Home enlisted the aid of other persons prominent in work for the blind and for the deaf, to produce and consolidate a series of monographs on the social, psychological, vocational, economic, and communications aspects of rehabilitating those who must rely entirely on their sense of touch for communication among themselves and with sighted persons.

The volume is intended for the use of professional rehabilitation workers over the country, who heretofore have been handicapped in their attempts at rehabilitation of the deaf-blind because of lack of means of communication. The book constitutes a new manual which particularly describes the recognized methods of communication with the blind, and adds the recently developed International Standard Manual Alphabet, which uses block letters imprinted in the hand as the medium.

The number of blind persons rehabilitated in 1958 by special agencies for the blind in 37 States, and by the general agencies in the remainder, was 4,007. This reflects the steady status over recent years, the total in 1957 being 4,005, and 3,765 in 1956. The occupations the rehabilitated entered in 1958 ranged through many categories. Outstanding among them were factory employment, especially in electronics and aircraft manufacturing for men and women, and many kinds of office work for women. Training courses for instructors in piano tuning were continued.

VENDING STAND PROGRAM

In the program of vending stand operations by blind people, the total number of stands increased from 1,830 in 1957 to 1,901 in 1958.

Of these, 621 were on Federal locations, and 1,280 on non-Federal property.

Total gross sales of all stands were \$31,683,474, 9 percent more than in 1957. Net proceeds to operators and blind assistants were \$6,269,-882, an increase of about 11 percent over 1957, producing an average income of \$2,833 to operators and \$1,619 to the blind assistants.

The Division of Services to the Blind continued its efforts to assist the States in development of programs for the rehabilitation of blind workers in agriculture and related programs.

One State reported that in a 3-year effort in this direction, more than 60 persons were rehabilitated into gainful employment as operators of their own farms, as tenant farmers, or as farm laborers.

The second year of a project of the Georgia Division of Vocational Rehabilitation to expand employment opportunities for the blind in greenhouse and nursery work has resulted in a total of 20 blind persons completing their training, 19 of whom have been placed in competitive employment, and one in his own business.

Another special project in Alabama is demonstrating the benefits of coordinating the services of the State Division of Vocational Rehabilitation with those of Federal and State agricultural agencies for the training of blind agricultural workers. The continuing project has enabled 10 blind men—eight of whom had been considered non-feasible for rehabilitation—to operate farms, and two others to become hired farm workers.

Small Business

An increasing number of disabled persons are being rehabilitated each year through small business enterprises. Such businesses are possible under provisions of Public Law 565 which authorize State rehabilitation agencies to provide to disabled persons, when practicable, the tools, equipment, licenses, initial stock, and supplies necessary for a small business, or for homecraft production and marketing.

The increase in this phase of the program in 1958 is shown in this table:

| | Expenditures in small business enterprises | |
|-----------|--|--------------------|
| | General agencies | Agencies for blind |
| 1957..... | \$1,026, 539 | \$499, 343 |
| 1958..... | 1,270, 603 | 795, 470 |

Cooperation With Public Assistance

The trend toward an increasing emphasis on rehabilitation services aimed toward rehabilitation of disabled persons whose major sup-

port came from public assistance funds continued during the year.

In 1958, approximately 20 percent of the 74,317 persons rehabilitated by the State agencies received public assistance at some time during the course of services.

The Council of State Directors of Vocational Rehabilitation, working in conjunction with the Office, took more intensive steps to develop, strengthen, increase, and make more effective those vocational rehabilitation services which help to restore to employment those disabled who receive public assistance.

Many kinds of specific cooperative activities were carried on in State programs. Examples from various States are: team review of disabled public assistance clients for assessment of their rehabilitation potential; improved referral processes; regular inter-agency cooperation and client motivation; and use of rehabilitation centers for evaluation of applicants for aid to the disabled. A considerable number of States revised or adopted new cooperative procedures or agreements with State public assistance agencies.

State Plans

With the approval of plans during fiscal year 1958 for the newly organized vocational rehabilitation program in Guam and the separate vocational rehabilitation program for the blind in Nevada, the total number of approved State plans for vocational rehabilitation has now reached 91. A State plan for vocational rehabilitation, approved as meeting the requirements of the Vocational Rehabilitation Act and regulations, is a prerequisite for Federal grants.

By the end of 1958, fifty-three of the State agencies had provisions in their plans for the establishment of rehabilitation facilities, and 45 had provisions for the establishment of workshops. Also, by that time plans in 47 States included provisions authorizing State agency-managed business enterprise programs for the blind, or for all types of the severely handicapped.

State Administration Development

Continuing recognition was given during 1958 to the need for executive development training for State agency administrators. Because of the State agencies' interest in effecting efficient and economic operation of their programs, the State Vocational Rehabilitation Council—which consists of all State Directors—appointed a special committee to work with the Office toward that purpose. Through this committee, special executive and supervisory training programs, utilizing experts in management outside of the field of rehabilitation, were developed.

Four seminars on administration were conducted during the year. A total of 113 State Directors and their assistants, from 49 States and Territories, participated in the seminars.

A second major approach to the improvement of State programs has been through development and completion of the first in a series of Program Administration Reviews. During the year, such reviews were made by regional staff in all State vocational rehabilitation agencies. The purpose is threefold. First, an opportunity is afforded to each State agency to assess its position in relation to vocational rehabilitation goals. Second, the review process provides assurance that Federal money is being properly spent by State agencies. Third, the Program Administration Reviews provide a continuing device for exploring a variety of questions or problems relating to provision of services to the handicapped.

During the first series of the new reviews conducted during this year, primary emphasis was placed on determining progress being made toward attainment of national goals, with particular concern on evaluating factors which may lead to the rate of expenditure exceeding the rate of increase in rehabilitations. It is anticipated that this same method will be used to explore such questions as eligibility, high rates of rejecting referrals, and other significant problems. Reports from all State agencies are being evaluated for a national report to be completed early in fiscal year 1959.

On request of State agencies, several consultative survey methods have been employed. In West Virginia, Kentucky and North Carolina, intensive high level consultation has been provided regarding overall problems of planning and organization. In the District of Columbia and the Pennsylvania agency for the blind, comprehensive management surveys of administration and program operations were completed. In Michigan, assistance was provided to the State agency in developing a "Five Year Plan for Vocational Rehabilitation." Marked improvement in administration has resulted in each instance.

During the year the Division of State Administration Development also concerned itself with progressive development of regional office operations. One additional professional staff member was added to most offices. As staffs have expanded, the need for more effective and efficient planning has been recognized. Regional activity has been improved and developed both by regional staff and by Central Office staff assistance. To a greater extent than ever before, the regional office staff has become recognized as the focus for vocational rehabilitation activities in the field.

STATE STAFF TRAINING

The year marked the Eleventh Annual Guidance, Training and Placement Workshop sponsored by the Office for the formulation and improvement of case work and other technical performance among State supervisory and consultative personnel. From year to year workshop committees gather information and develop reports on various phases of rehabilitation practices and present them to the annual workshop meeting for discussion, recommendations and application in the States.

In the 1958 Workshop, its committees, assisted by outstanding consultants in rehabilitation, presented reports on techniques and methods of determining in-service training needs of counselors and supervisors, rehabilitation services to OASI referrals, development of small business enterprises, and guidelines for the utilization of rehabilitation facilities by State vocational rehabilitation agencies. Ninety-five workers from 66 agencies representing 46 States and Territories participated.

Close liaison has been established with the nine-member Committee on Training of the States Vocational Rehabilitation Council, since that committee is charged with responsibility for consultation on all aspects of the training program, including both in-service and pre-service training.

Total of Federal Grants

The total of Federal grants in the vocational rehabilitation program in 1958 was \$50,157,030.

These included grants to States and Territories for services under basic support programs in the amount of \$41,083,273, about \$6.2 million more than in 1957. This sum was matched by \$24,974,604 in State funds, some 17 percent more than in 1957.

Federal grants to States for extension and improvement of programs amounted to \$1,094,483, which was matched by \$364,828 in State funds.

Research and demonstration awards during the year amounted to a total of \$3,599,599, of which \$1,972,667 was for first year support of new grants, and \$1,626,932 for continuation of existing projects.

Training grants, long and short term, and research fellowships, amounted to \$4,379,675, about 50 percent more than in 1957.

EXPANSION GRANTS

Fiscal year 1958 was the final year for the expansion grant program which, under authority of Section 4 (a) (2) of the Vocational Re-

habilitation Act, provided for Federal grants to States or other non-profit agencies for planning, preparing, and initiating substantial expansion of vocational rehabilitation programs. The authority was originally for fiscal years 1955 and 1956. This authority was extended for fiscal year 1957. Another amendment gave authority for grantees with unexpended balances on June 30, 1957, to use the balances in fiscal year 1958.

The expansion grant program proved a notable example of what can be accomplished in meeting community needs through the cooperative efforts of public and voluntary agencies. During the four years this program was in effect, Federal funds totalling over \$2,700,000 were spent for 259 community projects. State and private funds, spent on a matching basis, totaled over \$1,350,000, and private agencies spent additional sums above this amount.

Thirty-three of the projects, or 13 percent, were conducted by State vocational rehabilitation agencies. Other public agencies and voluntary groups conducted 226, or 87 percent, in cooperation with State vocational rehabilitation agencies.

Voluntary groups included State and local affiliates of the National Society for Crippled Children and Adults, the National Association for Retarded Children, United Cerebral Palsy, Goodwill Industries of America, Inc., the American Hearing Society, and others, which sponsored 77 percent of the projects. Such groups also worked closely with public agencies on many of the projects operated by the public agencies.

Expansion projects were in effect in all States except Nevada, and the District of Columbia, Alaska, Hawaii, and Puerto Rico.

The emphasis in this program was the initiation of new and broadened programs of services needed to rehabilitate the disabled, particularly expansion of the resources needed. The majority of the projects involved the establishment or expansion of rehabilitation facilities and sheltered workshops. Seventy-six percent of the funds were used for this purpose.

Many projects were designed to meet the needs of a particular group of the disabled, such as the blind, the deaf, the hard of hearing, the mentally retarded, and the cerebral palsied. Many were developed to serve a combination of two or more disability groups, and others to meet the needs of the disabled as a whole. Keeping in mind the considerable overlap in such a classification, the following list shows the proportion of projects in each disability group; blind, 44; deaf or hard of hearing, 35; mentally retarded, 36; mentally ill, 5; cerebral palsied, 10; tuberculosis, 5; heart, 3; two or more disabilities, 121.

STUDY OF BRIDGE PROVISIONS FOR MATCHING REQUIREMENTS

When the system for financing the vocational rehabilitation program was revised in 1954, transition or bridge provisions were included in the Act to avoid disruption in the State programs already in operation. The Act provides for a change in the matching requirements for the base allotment beginning July 1, 1959, with adjustments to be effected during the four fiscal years 1960, 1961, 1962, and 1963, so that by 1963 the entire support allotment will be matched at rates related to the fiscal capacity of the States.

By the end of fiscal year 1958, four years of operation under the new financing system provided an established base from which the impact of the bridge provisions on program operation could be evaluated. During 1958, the Office made comprehensive studies and analyses of the bridge provisions, working in close cooperation with the States Vocational Rehabilitation Council. A Committee of State directors was established this year to study the effect of the bridge provisions and their implications for program development and growth.

As a result of this intensive study, the consensus of both the States Council and the Office has been that the present bridge provisions in the Act should be allowed to take their course, and that no recommendations be made to change or defer the bridge provisions or to extend the period of transition. The study showed that although the transition to be achieved in the four year period could be expected to pose a real problem in some States, the national pattern of expansion in State financing of these programs would support the conclusion that the States generally will be able to cope with the impact of the matching requirements through and at the completion of the transition period.

INTERNATIONAL ACTIVITIES

The Office continues to have a leading role in developing basic philosophy for a worldwide program of vocational rehabilitation. As a member of the Interdepartmental Committee on International Social Policy, the Office is responsible for developing materials on rehabilitation, health and welfare programs for use by the Department of State in its work with the United Nations Secretariat, the Economic and Social Council, and the Social Commission. One such project was preparation of materials for the United Nations' biennial second international survey of programs of social development, under "Social Service Programmes and Vocational Rehabilitation."

During 1958 the Office provided program and policy guidance for more than 110 long-term trainees, observers and short-term visitors

from 38 countries, and for more than 20 labor attaches and training officers prior to foreign service for the Department of State. These services were provided in cooperation with the International Cooperation Administration; the United Nations and its Specialized Agencies; other Federal agencies; and educational institutions and rehabilitation facilities over the country. There is evidence of the effectiveness of these efforts in the marked progress in rehabilitation in some countries, within short periods after return of their trainees.

The Office has been responsive in other ways in strengthening worldwide vocational rehabilitation. The Director attended the Seventh World Congress on Rehabilitation in London, and an Assistant Director participated in the Third Inter-American Conference on Rehabilitation in Guatemala. Two consultants in rehabilitation were recruited by the Office for surveys of rehabilitation needs in other countries, one for the World Health Organization to survey needs in the Dominican Republic, and another for the International Cooperation Administration, for a similar survey in El Salvador.

Table 1.—Number of referrals and cases, by agency, fiscal year 1958

| Agency ¹ | Referrals | | | | Cases | | | | |
|--------------------------------|--------------------|------------------------------------|---|--|--|-------------------------|--|---|--|
| | During fiscal year | | | Remain- ing at end of year ³ | During fiscal year | | | | Remain- ing at end of year ⁶ |
| | Total | Ac- cepted for serv- ices | Not ac- cepted for serv- ices ² | | Total active load (re- ceiving services) | Closed from active load | | | |
| | | | | | | Reha- bilitated | After rehabil- itation plan in- itiated ⁴ | Before rehabil- itation plan in- itiated ⁵ | |
| United States, total..... | 369, 873 | 113, 855 | 135, 268 | 120, 750 | 258, 439 | 74, 317 | 8, 606 | 16, 675 | 158, 841 |
| Alabama..... | 8, 046 | 3, 387 | 791 | 3, 868 | 8, 321 | 2, 240 | 253 | 392 | 5, 436 |
| Alaska..... | 562 | 103 | 108 | 351 | 282 | 53 | 13 | 14 | 202 |
| Arizona: | | | | | | | | | |
| General..... | 1, 776 | 593 | 725 | 458 | 1, 285 | 496 | 118 | 86 | 585 |
| Blind..... | 97 | 52 | 23 | 22 | 125 | 11 | 12 | 6 | 96 |
| Arkansas..... | 8, 086 | 2, 674 | 3, 347 | 2, 065 | 4, 689 | 1, 900 | 144 | 100 | 2, 545 |
| California..... | 28, 759 | 5, 151 | 17, 798 | 5, 810 | 10, 703 | 1, 527 | 616 | 1, 436 | 7, 124 |
| Colorado: | | | | | | | | | |
| General..... | 3, 079 | 1, 174 | 1, 038 | 867 | 2, 263 | 737 | 199 | 87 | 1, 240 |
| Blind..... | 253 | 40 | 13 | 200 | 158 | 31 | 2 | 6 | 119 |
| Connecticut: | | | | | | | | | |
| General..... | 2, 474 | 1, 547 | 514 | 413 | 3, 883 | 927 | 173 | 287 | 2, 496 |
| Blind..... | 205 | 70 | 105 | 30 | 159 | 35 | 20 | 2 | 102 |
| Delaware: | | | | | | | | | |
| General..... | 1, 420 | 609 | 579 | 232 | 1, 278 | 490 | 15 | 85 | 688 |
| Blind..... | 39 | 25 | 9 | 5 | 54 | 18 | 10 | 1 | 25 |
| District of Colum- bia..... | 4, 667 | 639 | 3, 475 | 553 | 1, 490 | 291 | 130 | 130 | 939 |
| Florida: | | | | | | | | | |
| General..... | 12, 515 | 3, 924 | 4, 656 | 3, 935 | 7, 490 | 2, 389 | 306 | 543 | 4, 252 |
| Blind..... | 3, 800 | 441 | 2, 076 | 1, 283 | 969 | 261 | 49 | 23 | 636 |
| Georgia..... | 21, 410 | 6, 784 | 6, 606 | 8, 020 | 12, 362 | 5, 518 | 273 | 529 | 6, 042 |
| Hawaii: | | | | | | | | | |
| General..... | 980 | 253 | 427 | 300 | 609 | 206 | 38 | 25 | 340 |
| Blind..... | 42 | 27 | 11 | 4 | 86 | 13 | 1 | 6 | 66 |
| Idaho: | | | | | | | | | |
| General..... | 1, 771 | 315 | 855 | 601 | 711 | 195 | 41 | 27 | 448 |
| Blind..... | 50 | 16 | 21 | 13 | 38 | 10 | 1 | 1 | 26 |
| Illinois..... | 16, 754 | 5, 398 | 8, 254 | 3, 102 | 12, 805 | 4, 031 | 335 | 750 | 7, 689 |
| Indiana: | | | | | | | | | |
| General..... | 2, 909 | 1, 584 | 595 | 730 | 4, 120 | 1, 149 | 90 | 261 | 2, 620 |
| Blind..... | 220 | 88 | 59 | 73 | 250 | 34 | 16 | 28 | 172 |
| Iowa: | | | | | | | | | |
| General..... | 6, 033 | 1, 539 | 2, 041 | 2, 453 | 3, 862 | 1, 132 | 174 | 310 | 2, 246 |
| Blind..... | 345 | 64 | 153 | 128 | 149 | 24 | 7 | 13 | 105 |
| Kansas: | | | | | | | | | |
| General..... | 3, 790 | 1, 076 | 1, 137 | 1, 577 | 2, 415 | 676 | 67 | 169 | 1, 503 |
| Blind..... | 371 | 85 | 108 | 178 | 214 | 54 | 8 | 7 | 145 |
| Kentucky..... | 6, 660 | 1, 669 | 2, 618 | 2, 373 | 3, 481 | 1, 010 | 103 | 279 | 2, 089 |
| Louisiana: | | | | | | | | | |
| General..... | 4, 539 | 2, 509 | 836 | 1, 194 | 6, 628 | 1, 719 | 96 | 356 | 4, 457 |
| Blind..... | 750 | 135 | 186 | 429 | 537 | 102 | 10 | 18 | 407 |
| Maine: | | | | | | | | | |
| General..... | 2, 256 | 436 | 1, 023 | 797 | 1, 220 | 284 | 27 | 135 | 774 |
| Blind..... | 213 | 89 | 81 | 43 | 148 | 35 | 8 | 16 | 89 |
| Maryland..... | 5, 542 | 2, 182 | 1, 605 | 1, 755 | 5, 015 | 1, 188 | 183 | 576 | 3, 068 |
| Massachusetts: | | | | | | | | | |
| General..... | 4, 507 | 1, 675 | 843 | 1, 989 | 3, 851 | 1, 031 | 83 | 223 | 2, 514 |
| Blind..... | 343 | 104 | 40 | 199 | 352 | 71 | 16 | 23 | 242 |
| Michigan: | | | | | | | | | |
| General..... | 10, 377 | 3, 906 | 2, 527 | 3, 944 | 9, 363 | 2, 964 | 413 | 146 | 5, 840 |
| Blind..... | 368 | 192 | 99 | 77 | 411 | 99 | 36 | 37 | 239 |
| Minnesota: | | | | | | | | | |
| General..... | 5, 558 | 1, 383 | 1, 660 | 2, 515 | 4, 543 | 951 | 172 | 124 | 3, 296 |
| Blind..... | 888 | 142 | 446 | 300 | 412 | 64 | 23 | 19 | 306 |
| Mississippi: | | | | | | | | | |
| General..... | 2, 555 | 968 | 609 | 978 | 2, 498 | 886 | 71 | 108 | 1, 433 |
| Blind..... | 812 | 324 | 350 | 138 | 882 | 246 | 41 | 37 | 558 |
| Missouri: | | | | | | | | | |
| General..... | 5, 942 | 1, 851 | 2, 056 | 2, 035 | 3, 840 | 1, 272 | 92 | 176 | 2, 300 |
| Blind..... | 871 | 187 | 296 | 388 | 536 | 136 | 14 | 19 | 367 |
| Montana: | | | | | | | | | |
| General..... | 2, 104 | 507 | 872 | 725 | 1, 238 | 408 | 19 | 43 | 768 |
| Blind..... | 527 | 38 | 427 | 62 | 67 | 19 | 0 | 2 | 46 |
| Nebraska: | | | | | | | | | |
| General..... | 1, 833 | 864 | 321 | 648 | 2, 225 | 530 | 56 | 60 | 1, 579 |
| Blind..... | 217 | 72 | 78 | 67 | 152 | 59 | 4 | 1 | 88 |

See footnotes at end of table.

Table 1.—Number of referrals and cases, by agency, fiscal year 1958—Con.

| Agency ¹ | Referrals | | | | Cases | | | | |
|---------------------|--------------------|------------------------------------|---|--|--|-------------------------|--|---|--|
| | During fiscal year | | | Remain- ing at end of year ³ | During fiscal year | | | | Remain- ing at end of year ⁶ |
| | Total | Ac- cepted for servi- ces | Not ac- cepted for serv- ices ² | | Total active load (re- ceiving services) | Closed from active load | | | |
| | | | | | | Reha- bilitated | After rehabili- tation plan in- itiated ⁴ | Before rehabili- tation plan in- itiated ⁵ | |
| Nevada: | | | | | | | | | |
| General..... | 821 | 111 | 577 | 133 | 220 | 75 | 19 | 3 | 132 |
| Blind..... | 48 | 32 | 0 | 16 | 32 | 1 | 0 | 2 | 29 |
| New Hampshire: | | | | | | | | | |
| General..... | 792 | 318 | 76 | 398 | 675 | 153 | 35 | 21 | 466 |
| Blind..... | 46 | 27 | 13 | 6 | 78 | 10 | 6 | 5 | 57 |
| New Jersey: | | | | | | | | | |
| General..... | 6,432 | 2,202 | 2,155 | 2,075 | 3,950 | 1,030 | 160 | 361 | 2,399 |
| Blind..... | 944 | 185 | 220 | 539 | 482 | 124 | 13 | 12 | 332 |
| New Mexico: | | | | | | | | | |
| General..... | 1,394 | 285 | 640 | 469 | 568 | 272 | 15 | 11 | 270 |
| Blind..... | 227 | 39 | 61 | 127 | 97 | 33 | 4 | 2 | 58 |
| New York: | | | | | | | | | |
| General..... | 20,944 | 7,058 | 6,783 | 7,103 | 14,351 | 4,455 | 559 | 1,050 | 8,287 |
| Blind..... | 931 | 306 | 269 | 356 | 786 | 209 | 52 | 97 | 428 |
| North Carolina: | | | | | | | | | |
| General..... | 9,568 | 5,435 | 2,653 | 1,480 | 11,630 | 3,537 | 350 | 481 | 7,262 |
| Blind..... | 1,399 | 521 | 595 | 283 | 1,511 | 374 | 32 | 97 | 1,008 |
| North Dakota..... | 1,514 | 334 | 354 | 826 | 967 | 254 | 15 | 24 | 644 |
| Ohio: | | | | | | | | | |
| General..... | 6,280 | 1,959 | 1,677 | 2,644 | 4,191 | 1,286 | 100 | 243 | 2,562 |
| Blind..... | 518 | 233 | 111 | 174 | 694 | 99 | 29 | 52 | 511 |
| Oklahoma..... | 5,622 | 2,641 | 2,054 | 927 | 7,469 | 1,480 | 185 | 799 | 5,005 |
| Oregon: | | | | | | | | | |
| General..... | 6,592 | 1,022 | 2,863 | 2,707 | 2,679 | 667 | 89 | 308 | 1,615 |
| Blind..... | 161 | 37 | 34 | 90 | 144 | 29 | 3 | 5 | 107 |
| Pennsylvania: | | | | | | | | | |
| General..... | 24,574 | 8,755 | 8,153 | 7,666 | 20,081 | 6,299 | 1,001 | 1,566 | 11,215 |
| Blind..... | 3,792 | 437 | 2,421 | 934 | 1,066 | 238 | 74 | 96 | 658 |
| Puerto Rico..... | 7,188 | 1,793 | 1,770 | 3,625 | 4,036 | 932 | 86 | 269 | 2,749 |
| Rhode Island: | | | | | | | | | |
| General..... | 2,055 | 959 | 539 | 557 | 1,726 | 539 | 45 | 8 | 1,134 |
| Blind..... | 56 | 54 | 0 | 2 | 205 | 33 | 10 | 4 | 158 |
| South Carolina: | | | | | | | | | |
| General..... | 6,644 | 1,940 | 2,213 | 2,491 | 4,945 | 1,522 | 152 | 286 | 2,985 |
| Blind..... | 322 | 130 | 147 | 45 | 288 | 93 | 8 | 26 | 161 |
| South Dakota: | | | | | | | | | |
| General..... | 1,042 | 323 | 106 | 613 | 936 | 198 | 8 | 118 | 612 |
| Blind..... | 275 | 39 | 116 | 120 | 88 | 19 | 4 | 0 | 65 |
| Tennessee: | | | | | | | | | |
| General..... | 9,447 | 3,129 | 3,118 | 3,200 | 5,758 | 2,055 | 137 | 214 | 3,352 |
| Blind..... | 1,240 | 313 | 380 | 547 | 796 | 215 | 17 | 34 | 530 |
| Texas: | | | | | | | | | |
| General..... | 11,106 | 3,220 | 2,557 | 5,329 | 9,449 | 2,050 | 121 | 508 | 6,770 |
| Blind..... | 912 | 379 | 263 | 270 | 815 | 330 | 16 | 14 | 455 |
| Utah..... | 1,519 | 527 | 219 | 773 | 1,327 | 358 | 32 | 24 | 913 |
| Vermont: | | | | | | | | | |
| General..... | 1,278 | 363 | 321 | 594 | 780 | 168 | 47 | 49 | 516 |
| Blind..... | 77 | 29 | 32 | 16 | 69 | 14 | 4 | 3 | 48 |
| Virginia: | | | | | | | | | |
| General..... | 16,507 | 3,967 | 8,331 | 4,209 | 8,159 | 2,755 | 166 | 869 | 4,369 |
| Blind..... | 487 | 117 | 172 | 198 | 267 | 86 | 16 | 20 | 145 |
| Virgin Islands..... | 85 | 39 | 22 | 24 | 42 | 11 | 0 | 0 | 31 |
| Washington: | | | | | | | | | |
| General..... | 4,911 | 1,663 | 1,822 | 1,426 | 3,790 | 823 | 143 | 355 | 2,469 |
| Blind..... | 267 | 82 | 129 | 55 | 187 | 37 | 10 | 16 | 124 |
| West Virginia..... | 15,041 | 3,769 | 4,398 | 6,874 | 9,199 | 2,332 | 88 | 792 | 5,987 |
| Wisconsin: | | | | | | | | | |
| General..... | 8,376 | 1,877 | 3,923 | 2,576 | 5,047 | 1,324 | 140 | 89 | 3,494 |
| Blind..... | 176 | 101 | 38 | 37 | 207 | 63 | 8 | 14 | 122 |
| Wyoming..... | 948 | 213 | 446 | 289 | 474 | 183 | 29 | 6 | 256 |

¹ In States with 2 agencies, the State division of vocational rehabilitation is designated as "general," and the agency under the State commission or other agency for the blind is designated as "blind."

² Services declined, services not needed, individual not eligible, individual needing services other than vocational rehabilitation, referred to other agencies, migratory shifting of the individual, etc.

³ Eligibility for rehabilitation not yet determined.

⁴ Closed after rehabilitation plan was initiated; received rehabilitation service but never reached the point of employment because of personal factors, illness, aggravated disability, etc.

⁵ Closed prior to initiation of rehabilitation plan because of indifference of individual, probable increase in degree of disability, loss of contact, etc.

⁶ In process of rehabilitation on June 30, 1958.

Table 2.—*Vocational rehabilitation grants, 1958, State divisions of vocational rehabilitation*

| State or Territory | Support grants | Extension and improvement grants | Total |
|---------------------------|----------------|----------------------------------|--------------|
| Total..... | \$36,427,855 | \$892,960 | \$37,320,815 |
| Alabama..... | 1,348,622 | 5,932 | 1,354,554 |
| Arizona..... | 324,777 | 9,178 | 333,955 |
| Arkansas..... | 1,104,510 | 15,761 | 1,120,271 |
| California..... | 2,379,301 | 116,647 | 2,495,948 |
| Colorado..... | 242,282 | 10,499 | 252,781 |
| Connecticut..... | 315,277 | 15,505 | 330,782 |
| Delaware..... | 142,756 | ----- | 142,756 |
| Florida..... | 1,145,439 | 17,220 | 1,162,659 |
| Georgia..... | 2,127,749 | 32,234 | 2,159,983 |
| Idaho..... | 131,639 | ----- | 131,639 |
| Illinois..... | 1,606,201 | 81,905 | 1,688,106 |
| Indiana..... | 479,533 | 28,741 | 508,274 |
| Iowa..... | 670,998 | 21,624 | 692,622 |
| Kansas..... | 351,937 | 9,565 | 361,502 |
| Kentucky..... | 429,331 | 26,198 | 455,529 |
| Louisiana..... | 1,198,706 | ----- | 1,198,706 |
| Maine..... | 216,558 | 7,902 | 224,460 |
| Maryland..... | 463,598 | ----- | 463,598 |
| Massachusetts..... | 615,645 | 33,429 | 649,074 |
| Michigan..... | 1,181,908 | 65,266 | 1,247,174 |
| Minnesota..... | 759,456 | 22,216 | 781,672 |
| Mississippi..... | 331,941 | ----- | 331,941 |
| Missouri..... | 585,778 | 18,441 | 604,219 |
| Montana..... | 154,023 | 5,540 | 159,563 |
| Nebraska..... | 265,680 | 8,679 | 274,359 |
| Nevada..... | 33,885 | ----- | 33,885 |
| New Hampshire..... | 70,630 | ----- | 70,630 |
| New Jersey..... | 791,819 | 43,477 | 835,296 |
| New Mexico..... | 153,356 | 2,925 | 156,281 |
| New York..... | 2,471,396 | 94,057 | 2,565,453 |
| North Carolina..... | 1,155,078 | 15,577 | 1,170,655 |
| North Dakota..... | 226,049 | ----- | 226,049 |
| Ohio..... | 572,105 | 20,461 | 592,566 |
| Oklahoma..... | 896,985 | 19,425 | 916,410 |
| Oregon..... | 423,103 | 12,982 | 436,085 |
| Pennsylvania..... | 2,667,187 | 9,900 | 2,677,087 |
| Rhode Island..... | 213,249 | 7,190 | 220,439 |
| South Carolina..... | 613,339 | 19,875 | 633,214 |
| South Dakota..... | 191,092 | 4,836 | 195,928 |
| Tennessee..... | 1,159,540 | ----- | 1,159,540 |
| Texas..... | 1,152,761 | 15,000 | 1,167,761 |
| Utah..... | 191,130 | 7,051 | 198,181 |
| Vermont..... | 145,766 | ----- | 145,766 |
| Virginia..... | 1,053,883 | 31,704 | 1,085,587 |
| Washington..... | 680,157 | ----- | 680,157 |
| West Virginia..... | 1,072,668 | ----- | 1,072,668 |
| Wisconsin..... | 820,523 | 28,017 | 848,540 |
| Wyoming..... | 108,879 | ----- | 108,879 |
| Alaska..... | 102,443 | 5,000 | 107,443 |
| Guam..... | 700 | ----- | 700 |
| Hawaii..... | 151,044 | 3,000 | 154,044 |
| Puerto Rico..... | 483,640 | ----- | 483,640 |
| Virgin Islands..... | 13,143 | ----- | 13,143 |
| District of Columbia..... | 238,661 | ----- | 238,661 |

Table 3.—*Vocational rehabilitation grants, 1958, State commissions or agencies for the blind*

| State or Territory | Support grants | Extension and improvement grants | Total |
|---------------------|----------------|----------------------------------|---------------|
| Total..... | \$4, 655, 417 | \$201, 524 | \$4, 856, 941 |
| Arizona..... | 44, 079 | ----- | 44, 079 |
| Colorado..... | 69, 598 | 3, 499 | 73, 097 |
| Connecticut..... | 38, 677 | 3, 876 | 42, 553 |
| Delaware..... | 37, 470 | 5, 000 | 42, 470 |
| Florida..... | 408, 000 | ----- | 408, 000 |
| Idaho..... | 10, 401 | ----- | 10, 401 |
| Indiana..... | 57, 033 | ----- | 57, 033 |
| Iowa..... | 44, 177 | 1, 753 | 45, 930 |
| Kansas..... | 108, 168 | 4, 200 | 112, 368 |
| Louisiana..... | 143, 442 | ----- | 143, 442 |
| Maine..... | 57, 360 | ----- | 57, 360 |
| Massachusetts..... | 128, 174 | ----- | 128, 174 |
| Michigan..... | 117, 796 | ----- | 117, 796 |
| Minnesota..... | 131, 653 | ----- | 131, 653 |
| Mississippi..... | 235, 050 | ----- | 235, 050 |
| Missouri..... | 211, 690 | ----- | 211, 690 |
| Montana..... | 44, 138 | ----- | 44, 138 |
| Nebraska..... | 73, 513 | 3, 600 | 77, 113 |
| Nevada..... | 4, 000 | 5, 000 | 9, 000 |
| New Hampshire..... | 24, 760 | ----- | 24, 760 |
| New Jersey..... | 140, 886 | 1, 875 | 142, 761 |
| New Mexico..... | 42, 433 | ----- | 42, 433 |
| New York..... | 377, 723 | 46, 575 | 424, 298 |
| North Carolina..... | 472, 296 | ----- | 472, 296 |
| Ohio..... | 216, 657 | 48, 258 | 264, 915 |
| Oregon..... | 74, 442 | 1, 936 | 76, 378 |
| Pennsylvania..... | 403, 793 | 24, 000 | 427, 793 |
| Rhode Island..... | 34, 999 | ----- | 34, 999 |
| South Carolina..... | 53, 386 | ----- | 53, 386 |
| South Dakota..... | 49, 319 | 1, 200 | 50, 519 |
| Tennessee..... | 235, 895 | ----- | 235, 895 |
| Texas..... | 269, 649 | 17, 592 | 287, 241 |
| Vermont..... | 30, 788 | 5, 000 | 35, 788 |
| Virginia..... | 77, 497 | ----- | 77, 497 |
| Washington..... | 61, 691 | 23, 160 | 84, 851 |
| Wisconsin..... | 94, 681 | 3, 000 | 97, 681 |
| Hawaii..... | 30, 103 | 2, 000 | 32, 103 |

Saint Elizabeths Hospital

THE YEAR JUST PAST has been an active one and one of progress. The general health of the patients has continued good; despite the problems of understaffing and overcrowding, the dedication of the medical staff, ward personnel, and other employees of the Hospital has maintained a high standard of care for the patients. The so-called ataractic or "tranquillizing" drugs have continued to prove their usefulness. More "open" wards have been established, and patient self government has been further developed. Every effort has been made to emphasize to the patients their responsibility not only for their improvement but for that of their fellow patients. More elderly patients are being admitted and more of the patients in the Hospital are reaching advanced years. With the increased number of elderly and infirm a constantly heavier load is being thrown upon the already overloaded ward personnel.

In the report a year ago mention was made of a self-evaluation of the hospital operation, a study which had indicated that more than a 50-percent increase in staff is needed in order to give adequate treatment to patients and to provide training and research. During the current year a Board of Consultants, distinguished in the field of hospital administration, was invited to make a survey of the hospital. The Board reported that in almost all details they agreed entirely with the hospital's estimate of additional personnel needs. A considerable increase in court activity has been noted during the year; nearly 100 writs of habeas corpus or orders to show cause were served on the hospital. As a result, members of the medical staff had to spend many days in court, thus detracting from their attention to the patients. It has continued to be necessary to maintain a waiting list for prisoner patients; however, work is progressing satisfactorily on

the new maximum security building, which should relieve this situation.

As usual, the hospital was visited by many persons, both from this country and abroad, who are interested in one phase or another of psychiatric hospital administration. Twenty foreign countries were represented. An active program in education has been carried on, and training has continued in the fields of psychiatry, psychology, social work, medicine, surgery, pathology, occupational therapy, nursing and clinical pastoral work. Students from the three local medical schools received a part of their clinical training in psychiatry at the hospital, and in-service training in a number of fields was carried on. The Hospital continues to be the only public mental hospital in the county which is approved for a rotating internship.

One of the most significant developments during the year was the establishment of the National Institute of Mental Health-Saint Elizabeths Hospital Research Project. The ground floor and the fifth floor of the William A. White Building were entirely remodeled, so that well-equipped laboratories and offices are available. Some of the Institute staff are already functioning in the laboratories and on the wards. It should be pointed out that this is truly a joint project. Although the personnel of the National Institute of Mental Health participate, they are regarded and regard themselves as an integral part of the Saint Elizabeths organization. One Director of Research serves in that capacity for both the Hospital and the Institute staff. The Hospital is highly enthusiastic about these possibilities; indeed, there seems good reason to expect that this may be one of the most significant activities in the whole field of psychiatric research in the country.

Division of Medical Services

CLINICAL BRANCHES

The general care and treatment of the patients is borne by three clinical branches, each of them subdivided into services. A Medical and Surgical Branch is charged with the acute medical and surgical treatment of all patients and emergency attention to employees.

As has been noted in previous reports, the shortage of staff constitutes the greatest operational problem. The increased alertness of the patients due to the "tranquillizing" drugs has laid much greater responsibilities upon the ward and medical personnel. Thus the shortages which have existed previously have become far more noticeable and pressing. Perhaps of equal importance as a problem is that of overcrowding. The general overcrowding of the Hospital is about 15 percent, but there are areas in which the crowding is considerably greater than this; indeed, in some areas patients are cared for in

decidedly substandard circumstances as well as being crowded. The importance of this feature can hardly be overestimated. The last net increase in hospital beds dates from 1944; buildings authorized since that time have constituted replacement only.

The increasing number of elderly and infirm patients is not unique to Saint Elizabeths Hospital. It is, indeed, one of general prevalence in mental hospitals, and has laid very serious nursing obligations upon the hospitals. Not all of the elderly patients are poor risks and, indeed, a fair number of them could be released to the community were greater services of social service and rehabilitation available.

New admissions showed a decrease of only 10 over the previous year, namely, 1,605. Interestingly, however, the number of readmissions, that is, patients who have previously been in Saint Elizabeths Hospital or similar institutions before, has been rising steadily during the last few years and this year stands at 28 per cent. During the year 1,076 patients were discharged, a slight increase over the year before, this constituting 67 per cent of the admissions. In addition 532 deaths occurred, so that the number of all discharges exceeded the admissions by three.

The increasing recognition by the courts of the mental factors in crime has resulted in recent years in a greater load upon the West Side Service, in which is found the maximum security section. One hundred and forty-five prisoners were admitted to Howard Hall during the year, 16 of these being so-called "sexual psychopaths." Twenty-one of the patients had been acquitted by reason of insanity, a very considerable increase over previous years. Somewhat more alarming and time-consuming is the steadily increasing number of cases in which patients appeal to the court for release. The amount of time involved in preparing the returns and in taking the patient to court has consumed an inordinate amount of the time of the physicians. In fairness it must be said that this entire situation reflects a very desirable rapprochement between the courts and the hospitals and a growing interest by the courts in the mental state of the offender. It is our expectation that in the near future the waiting list for prisoners may be substantially reduced.

The increase in open wards is decidedly in tune with the present trend in hospital administration. Group therapy has been extensively used, and the effect of the patient government committees has served to increase the feeling of responsibility of the patients. Electro-shock therapy has been used almost not at all, and no lobotomies have been performed. The services of the Rehabilitation Division of the District Government, cooperating with the Occupational and Social Service Branches of the Hospital, has been most helpful in

restoring patients to the community. Further cooperation with the Department of Public Welfare and the Office of Vocational Rehabilitation are expected as a result of negotiations now under way.

MEDICAL AND SURGICAL BRANCH

It is by reason of this Branch that the Hospital is approved for rotating internship. The work of the Branch is extraordinarily varied and of high efficiency, in spite of the fact that the Medical and Surgical Building, now 30 years old, is approaching obsolescence. There were 2,305 admissions to this Branch during the year and 74,000 hospital days. There were clinical visits, too, of over 50,000. The pharmacy has been refurbished and its efficiency has been much improved as a result. The same may be said of the dental division, which has been expanded and reorganized. One of the problems in the Medical and Surgical Branch is a reflection of the crowding of the rest of the Hospital, namely, the necessity to keep patients in the buildings of the Branch when their condition indicates return to the other services. There have been many lectures and committees, and an extremely active program of various studies such as a cytology study on the female patients and chest X-ray program. During the year radiology was added to surgery as one of the departments in which the Hospital cooperates with the George Washington University School of Medicine.

PSYCHOTHERAPY BRANCH

This Branch provides services to certain selected patients in the field of individual psychotherapy as well as group psychotherapy, psychodrama, dance and art therapy. Exhibits of the art productions of patients were sent to the International Congress of Psychiatry in Zürich and to the meeting of the American Psychiatric Association in San Francisco.

PSYCHOLOGY BRANCH

A very active training program is carried on in this Branch; no less than 61 lectures and 90 hours of clinics were provided. In addition to routine psychological testing (including Rorschach and vocational), five research projects were completed. Space here, as in other parts of the Hospital, continues to be a problem.

RECREATION THERAPY BRANCH

This Branch, formerly known as the Special Services Branch, has carried on a very active program, providing ward parties, various entertainments, both in the wards and Red Cross Building, and Hitchcock Hall. Through the courtesy of the Commanding Officer of the Bolling Air Force Base patients have been taken to the swimming pool there. Church choirs and a glee club have been conducted,

as well as various bands and orchestras, and a program of sports has been carried on.

VOLUNTEER SERVICES BRANCH

This relatively new Branch has accomplished much for the benefit of the Hospital. One hundred and thirty-eight volunteers contributed over 12,000 hours of their time during the year. One of the new ventures was the establishment of an apparel shop operated by volunteers which provided articles of clothing and ornamentation to over 600 patients. The American Red Cross and many other community organizations have been most helpful in giving service to this Branch; their contribution has been deeply appreciated.

OCCUPATIONAL THERAPY BRANCH

An educational-rehabilitation program has been developed during the year with 15 courses being given by volunteers. Preindustrial therapy has been further developed and an increasing number of patients are being prepared for placing out in various activities. In some of these the Department of Health, Education, and Welfare through its Personnel Division has been most helpful in providing opportunities for patients to prove their ability to carry on useful activities outside the Hospital.

SOCIAL SERVICE BRANCH

This Branch has been most helpful in the rehabilitation of patients and during the year served 1,037 patients. Opportunity for field work is given to the social work students of Catholic University and Howard University and during the year 16 students had this experience under supervision. Eighteen patients were sent to the District of Columbia Village, of whom two were later returned. This Branch has had general supervision of the school program, under which two full-time instructors from the Board of Education have been providing instruction for the teenage patients. Two of these patients graduated from the high school course this year, and several received prizes in the Science Fair held by the schools of the District.

NURSING BRANCH

This Branch has done yeoman service in spite of a general shortage of graduate nurses. There are 14 schools of nursing which affiliate with the Hospital, and a number of Navy hospital corpsmen are trained by the Nursing Branch.

MEDICAL RECORDS BRANCH

This Branch has continued to develop but is considerably hampered by the need of additional space and personnel. These problems will be remedied as soon as possible.

LIBRARY SERVICES

The Medical Library had 640 acquisitions during the year, bringing the total to 19,238 volumes. Two hundred and five journals are subscribed to. Six hundred and three inter-library loans were made. Unfortunately, some of the libraries with which the Hospital deals are curtailing their services somewhat so that the service received has slowed down. Much space is needed and it is hoped that eventually this can be remedied if the plans for an additional wing to the Administration Building are carried out. The Patients' Circulating Library now has over 57,000 volumes. It carries on an active program of circulating books to the various wards. It does bookbinding and carries on a number of classes, particularly in shorthand, typing, and foreign languages.

CHAPLAIN SERVICES BRANCH

This Branch under Catholic and Protestant chaplains carries out religious ministry to the patients both in the Chapel and on the wards. The chaplains visit new patients and such other patients as request their services. In addition training is carried on by the Catholics in affiliation with Catholic University and by the Protestant chaplain under the program approved by the Council for Clinical Training. Community organizations have been most helpful to the chaplains as well as to the Volunteer Branch and thanks are expressed to them. A fine new electric organ, paid for entirely with donated funds, has added much to the dignity of the services.

Division of Administration

Space does not permit mention of the various activities in the Administrative Division of the Hospital, financial, personnel, construction, grounds, laundry, and so on. Substantial progress has been made in developing new methods of property control and of billing. Much surplus property has been obtained. The grounds have been maintained in excellent condition, and several contracts, notably for the construction of the Maximum Security Building, have been supervised.

Needs of the Hospital

Two needs stand out, one preeminently, namely, increased personnel both medical and administrative. Additional space is also needed to overcome the crowding which exists in a number of areas of the Hospital, both for patients and for administrative activities.

Table 1.—*Movement of patient population, fiscal year 1958*

| | Total | Male | | | Female | | |
|--|-------|-------|---------|-------|--------|---------|-------|
| | | White | Colored | Total | White | Colored | Total |
| Total number under care and treatment, fiscal year 1958..... | 9,071 | 2,604 | 1,904 | 4,508 | 2,677 | 1,886 | 4,563 |
| Remaining on rolls, June 30, 1957..... | 7,466 | 2,170 | 1,540 | 3,710 | 2,209 | 1,547 | 3,756 |
| Admitted during year..... | 1,605 | 434 | 364 | 798 | 468 | 339 | 807 |
| Total discharged and died..... | 1,608 | 479 | 344 | 823 | 500 | 285 | 785 |
| Discharged..... | 1,076 | 312 | 246 | 558 | 329 | 189 | 518 |
| Conditions on discharge: | | | | | | | |
| Recovered..... | 74 | 18 | 30 | 48 | 18 | 8 | 26 |
| Social recovery..... | 389 | 64 | 82 | 146 | 136 | 107 | 243 |
| Improved..... | 421 | 146 | 79 | 225 | 135 | 61 | 196 |
| Unimproved..... | 150 | 64 | 33 | 97 | 40 | 13 | 53 |
| Worse..... | 0 | | | | | | |
| No mental disorder..... | 39 | 18 | 21 | 39 | 0 | 0 | 0 |
| Unknown..... | 3 | 2 | 1 | 3 | 0 | 0 | 0 |
| Died..... | 532 | 167 | 98 | 265 | 171 | 96 | 267 |
| Remaining on rolls, June 30, 1958..... | 7,463 | 2,125 | 1,560 | 3,685 | 2,177 | 1,601 | 3,778 |
| Corrections, change in sex and color..... | 0 | +3 | -11 | -8 | +8 | 0 | +8 |
| Adjusted on rolls, June 30, 1958..... | 7,463 | 2,128 | 1,549 | 3,677 | 2,185 | 1,601 | 3,786 |
| Absent on visit and elopement..... | 469 | 77 | 71 | 148 | 153 | 168 | 321 |
| Patients in hospital, June 30, 1958..... | 6,994 | 2,051 | 1,478 | 3,529 | 2,032 | 1,433 | 3,465 |

Table 2.—Consolidated statement of movement of patients, by classification, fiscal year 1958

| | Reimbursable patients | | | | | | | | | | Nonreimbursable patients | | | | | | | | | | | | | | | | | | |
|---------------------------------------|-----------------------|----------|--------------------------|-----------------|-----------------|------------------------------|--------------------------|-------|----------|------|-----------------------------------|--|--------------------------|-----------------|------------|-------------|--------------------|----------------------|-----------------|-----------------|--------------|------|-----------------|-----------------------------------|--------------------|-----------------|-----------------------|----------------|---|
| | Total | Subtotal | Bureau of Indian Affairs | D. C. residents | D. C. voluntary | United States Soldiers' Home | Veterans' Administration | Other | Subtotal | Army | Bureau of Employment Compensation | Immigration and Naturalization Service | Bureau of National Homes | Canadian Insane | Canal Zone | Coast Guard | D. C. nonresidents | Federal reservations | Foreign Service | Interned aliens | Marine Corps | Navy | D. C. prisoners | D. C. prisoners (sex psychopaths) | Military prisoners | U. S. prisoners | Public Health Service | Virgin Islands | |
| On rolls, June 30, 1957 | 7,466 | 6,033 | 69 | 5,386 | 154 | 52 | 370 | 2 | 1,433 | 226 | 1 | 2 | 3 | 57 | 16 | 15 | 255 | 8 | 5 | 4 | 21 | 90 | 381 | 32 | 28 | 106 | 41 | 142 | |
| Admitted to June 30, 1958 | 1,605 | 1,365 | 0 | 1,097 | 238 | 18 | 10 | 2 | 240 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 8 | 29 | 12 | 0 | 0 | 0 | 145 | 24 | 0 | 16 | 2 | 1 | |
| Separated fiscal year 1958 | 1,608 | 1,154 | 5 | 896 | 176 | 29 | 47 | 1 | 454 | 11 | 0 | 0 | 0 | 4 | 0 | 0 | 248 | 17 | 8 | 0 | 0 | 10 | 108 | 19 | 1 | 20 | 4 | 4 | |
| Deaths | 532 | 468 | 2 | 437 | 10 | 11 | 8 | 0 | 64 | 11 | 0 | 0 | 0 | 3 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 8 | 13 | 1 | 0 | 4 | 3 | 4 | |
| Discharges | 1,076 | 686 | 3 | 459 | 166 | 18 | 39 | 1 | 390 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 232 | 17 | 8 | 0 | 0 | 2 | 95 | 18 | 0 | 16 | 1 | 0 | |
| On rolls, June 30, 1958 | 7,463 | 6,244 | 64 | 5,587 | 216 | 41 | 333 | 3 | 1,219 | 215 | 1 | 2 | 3 | 56 | 16 | 15 | 15 | 20 | 9 | 4 | 21 | 80 | 418 | 37 | 27 | 102 | 39 | 139 | 0 |
| Changes in class | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Adjusted on rolls, June 30, 1958 | 0 | -199 | 0 | -240 | -9 | +3 | +47 | 0 | +199 | - | - | - | - | - | - | - | +211 | -1 | - | - | - | - | -12 | +3 | - | -2 | - | - | - |
| Adjusted figures | 7,463 | 6,045 | 64 | 5,347 | 207 | 44 | 380 | 3 | 1,418 | 215 | 1 | 2 | 3 | 56 | 16 | 15 | 226 | 19 | 9 | 4 | 21 | 80 | 406 | 40 | 27 | 100 | 39 | 139 | 0 |
| On visit and elopement, June 30, 1958 | 469 | 431 | 0 | 360 | 49 | 0 | 22 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 3 | 2 | 0 | 0 | 1 | 7 | 7 | 0 | 1 | 0 | 0 | |
| In hospital, June 30, 1958 | 6,994 | 5,614 | 64 | 4,987 | 158 | 44 | 358 | 3 | 1,380 | 215 | 1 | 2 | 3 | 56 | 16 | 15 | 209 | 16 | 7 | 4 | 21 | 79 | 399 | 33 | 27 | 99 | 39 | 139 | 0 |
| Total treated, fiscal year 1958 | 9,071 | 7,398 | 69 | 6,483 | 392 | 70 | 380 | 4 | 1,673 | 226 | 1 | 2 | 3 | 60 | 16 | 15 | 263 | 37 | 17 | 4 | 21 | 90 | 526 | 56 | 28 | 122 | 43 | 143 | 0 |

American Printing House for the Blind

AS THE OFFICIAL schoolbook printery for the blind in the United States, one of the principal functions of the American Printing House for the Blind, in Louisville, Kentucky, is the provision of special educational books and supplies for the blind school children throughout the country through the Federal Act "To Promote the Education of the Blind." This act, originally passed in 1879, authorizes an annual appropriation to the Printing House for this purpose. Allocations of books and materials are made on a per capita basis. Only those pupils may be registered whose vision comes within the accepted definition of blindness as follows: "Central visual acuity of 20/200 or less in the better eye with correcting glasses, or a peripheral field so contracted that the widest diameter of such field subtends an angular distance no greater than 20 degrees."

The Printing House maintains large catalogs of Braille books, Talking Books, recorded tapes, Braille music publications, large-type texts, and tangible apparatus. A rich collection of educational material is thereby provided for the kindergarten through the high school grades. A total of 6,459 blind pupils was enrolled in the residential schools for the blind and 4,724 in public schools—a total of 11,183 blind pupils being served by the Printing House—for the fiscal year ending June 30, 1958.

During the 1958 fiscal year, Braille books, educational periodicals, and music made up approximately 48½ percent of the materials required by the schools; Braille slates, Braillewriters, maps, and other mechanical devices about 14½ percent; Talking Books about 5 percent; recorded educational tapes about 1 percent; and large-type books about 27½ percent. Approximately 3 percent was used for miscellaneous items.

Gallaudet College

GALLAUDET COLLEGE is devoted to the education of deaf persons who because of their handicap would have difficulty in schools and colleges for hearing students. The college, located in Washington, D. C., is the world's only college for the deaf. It was accredited in May 1957 by the Middle States Association of Colleges and Secondary Schools. In addition to education, it conducts research into the educational problems of deafness. It consists of the Kendall School and the college proper.

KENDALL SCHOOL

Primary and secondary schooling is provided for deaf children in the Kendall School, which also serves as a laboratory school for teachers training in the college. The oral method of instruction is used for all pupils except those who make no progress under it. Enrollment last year was 70 of which 60 came from the District of Columbia.

GALLAUDET COLLEGE

The college, established in 1864 by act of Congress, offers the associate's degree after 2 years of study, and a bachelor's degree in the liberal arts and sciences. The Preparatory Department provides the senior year of high school for students who are unable to obtain it in the State schools for the deaf. The Graduate Department of Education offers a master's degree and a professional diploma in the education of the deaf to students with normal hearing, and offers a 4-week training course to vocational counselors who wish to acquire a deeper understanding of deaf persons. Total enrollment in the college last year was 347 with students from 42 States, Hawaii, and 6 foreign countries. In addition, there were in attendance throughout a part of the school year 51 students enrolled in (a) summer school graduate courses, (b) courses in "orientation to the deaf" for vocational rehabilitation counselors, welfare workers, etc., and (c) extension classes.

Howard University

HOWARD UNIVERSITY, located in the District of Columbia, was chartered by act of Congress on March 2, 1867. The university offers programs of higher education on the undergraduate, graduate, and professional levels. Undergraduate students are registered in the college of liberal arts; graduate students seeking the master's and doctor of philosophy degrees are registered in the graduate school; professional students are registered in the colleges of medicine, dentistry, pharmacy, and the schools of engineering and architecture, music, social work, law, and religion. (The school of religion receives no support from Federal funds.)

The educational program of Howard University is conducted in keeping with the democratic purposes of the land-grant colleges and State universities with the low tuition fees and living costs which characterize these State institutions and with an educational program resting upon and permeated by the the content and spirit of a general or liberal education. The university admits students of both sexes, from every race, creed, and national origin, but it accepts and undertakes to discharge a special responsibility for the admission and training of Negro students.

ENROLLMENT OF STUDENTS

During the school year 1957-58, the university served a total of 6,267 students as follows: 4,899 during the regular academic year and 1,368 in the summer session of 1957. The net total enrollment, excluding all duplicates, was 5,356, distributed in the 10 schools and colleges as follows: liberal arts, 2,466; graduate school, 542; engineering and architecture, 751; music, 260; medicine, 317; dentistry, 539; pharmacy, 133; law, 107; social work, 190; and religion, 51. This enrollment included a larger body of Negro professional students

than in all universities of public support in all the Southern States combined.

GEOGRAPHICAL DISTRIBUTION OF STUDENTS

Of a total of 4,899 students enrolled during the regular school year, 4,393 or 89.7 percent came from 40 States and the District of Columbia, while 506 students or 10.3 percent came from outside the continental United States.

The 4,393 students who came from the United States were distributed as follows: New England States, 69; Middle Atlantic States, 674; East North Central States, 246; West North Central States, 74; South Atlantic States, 2,713; East South Central States, 313; West South Central States, 260; Mountain States, 7; and Pacific States, 37.

The 506 students from outside the continental United States came from 43 foreign countries, including 10 countries in Africa, 11 countries in Asia, 11 countries in Europe, 6 countries in Central America, 3 countries in South America, and 14 island countries in the British and Netherlands West Indies.

VETERANS

There were 810 veterans enrolled at Howard University during the school year 1957-58. They were distributed among the 10 schools and colleges as follows: 343 in liberal arts, 167 in engineering and architecture, 14 in music, 39 in pharmacy, 60 in dentistry, 36 in law, 72 in medicine, 7 in religion, 12 in social work, and 60 in the graduate school.

ARMY AND AIR FORCE ROTC

Army ROTC—Three hundred and fifty-one students were enrolled in Army ROTC during the school year 1957-58. Of this number, 164 were in the first year course, 85 were in the second year, 62 were in the third year, and 40 were in the fourth year. During the course of the year, 25 students were commissioned as Reserve Officers in the Army.

Air Force ROTC—There were 304 students enrolled in Air Force ROTC. Of this number 139 were in the first year course, 139 were in the second, 13 were in the third, and 13 were in the fourth. Eight students received commissions as Reserve Officers in the Air Force.

THE FACULTY

During the year 1957-58, a total of 586 teachers served the university. Of this number, there were 333 full-time teachers and 253 part-time teachers. The full-time equivalent of the teaching staff was 385.96.

From the beginning of the university's work in 1867, the founders invited to the faculty of the university learned and able people

on the basis of their ability and character as individuals and without discrimination as to sex, race, creed, color, or national origin. It was a major purpose of the founders to employ Negro teachers, among others, on every faculty. Today the Negro members of the professional faculties of Howard University constitute together a group of professional teachers larger by far than all the Negroes so employed in all other American universities combined. The existence of this group of Negro university teachers at Howard University has been a standing inspiration to the Negro people for more than three-quarters of a century, and membership on one of these faculties has been the first employment of many of the outstanding Negroes in the public life of America. From them came the founder and operator of the first blood plasma bank in the world, the first Negro governor of an American possession, the first Negro in the Secretariat of the United Nations (Nobel Prize Winner), the first Negro member of the bench of the United States Court of Appeals, and the first Negro cultural attache in the diplomatic service of the United States to a major European nation.

THE BUILDING PROGRAM

At the beginning of the 1957-58 school year, the new building constructed for the basic preclinical branches of medicine was occupied for the first time and remodeling work on the adjoining older building was finished, so that now the university is fully prepared to accommodate all the basic premedical students required by the program of doubled enrollment in medicine and dentistry.

By the end of the school year work was nearing completion on the new men's dormitory. It was certain that this building would be ready to accommodate 304 men in September 1958.

In April 1958 construction work began on the new auditorium-fine arts building, designed to provide an auditorium for 1,500 persons, a laboratory little theater with a capacity for 320 persons, complete classrooms and other facilities for the entire school of music and for the departments of fine arts and the drama.

GRADUATES

During the school year 1957-58, there were 631 graduates from the 10 schools and colleges, compared with 560 graduates during the year 1956-57. These graduates came from 30 States, the District of Columbia, the Virgin Islands, Puerto Rico, and the following foreign countries: Ethiopia, Liberia, Nigeria, India, Israel, Barbados, Bermuda, Grenada, Jamaica, the Netherlands West Indies, Bulgaria, Russia, the Philippines, and British Guiana.

These 631 graduates were distributed among the 10 schools and colleges as follows: liberal arts, 284; engineering and architecture, 63; music, 16; the graduate school, 53; social work, 33; medicine, 67;

dentistry, 47; dental hygiene, 8; pharmacy, 24; law, 27; and religion, 9.

Two of these graduates were persons receiving the degree of Doctor of Philosophy in Chemistry. These two graduates were the first students to be awarded the degree of Doctor of Philosophy at Howard University. Three honorary degrees were also conferred.

Since its establishment in 1867, Howard University has graduated 20,454 persons. By far the large majority of these graduates have been Negroes. These graduates are at work in 43 States and 27 foreign countries. In every population center in the United States they constitute the largest and most diversified group of trained Negro public servants related to any single institution in the world.

The largest number of graduates have entered the field of teaching, primarily in the Southern States. Two thousand nine hundred and forty have entered the practice of medicine; 2,420 have entered the practice of dentistry and dental hygiene; 2,355 have entered the field of law; 777 have entered the ministry; 848 have entered the field of pharmacy; 646 have gone into engineering and architecture; and 390 have entered the field of social work.

SERVICE IN FOREIGN COUNTRIES

In recent years teachers and students from Howard University have served in Burma, Brazil, Egypt, Ethiopia, Germany, India, Israel, Iraq, Italy, British Guiana, Japan, and Vietnam. Fulbright scholars from the university have worked in Egypt, Ghana, Iraq, Japan, Norway, Sweden, Denmark, Italy, France, Greece, England, and India.

The responsible leaders in Government and the friends of America again and again have acknowledged their services as being of the greatest value to their country and to the cause of democracy in the world.

Among the most recent testimony from the Government is a letter from the Director of the International Educational Exchange Service concerning the contributions made by Dr. Walter M. Booker, Head of the Department of Pharmacology, who has just completed a year's work (1957-58) as a Fulbright scholar at the Heymans Institute of the University of Ghent in Belgium.

"The Booker family adjusted easily to life in Belgium and made many friends among their Belgian hosts. In this way they contributed effectively to the basic objective of the Department's program—the promotion of mutual understanding and good will between the people of the United States and the people of other countries.

"The cooperation of your university in making it possible for Dr. Booker to participate in the program is very much appreciated."

Detailed Contents

THE SECRETARY'S REPORT

| | Page |
|---|------|
| PROGRESS AND COOPERATION FOR ECONOMIC SECURITY..... | 2 |
| PROGRESS AND COOPERATION FOR THE NEEDY..... | 4 |
| PROGRESS AND COOPERATION FOR CHILDREN..... | 5 |
| PROGRESS AND COOPERATION FOR THE DISABLED..... | 6 |
| PROGRESS AND COOPERATION FOR EDUCATION..... | 7 |
| The Problems..... | 8 |
| PROGRESS AND COOPERATION FOR HEALTH..... | 10 |
| PROGRESS AND COOPERATION FOR PURE FOOD AND DRUGS..... | 14 |

| | |
|--|----|
| TABLE 1.—Grants to States: Total grants under all Department of Health, Education, and Welfare programs, fiscal year 1958..... | 16 |
|--|----|

SOCIAL SECURITY ADMINISTRATION

| | |
|--|----|
| SOCIAL SECURITY IN 1958..... | 17 |
| INTERNATIONAL ACTIVITIES..... | 21 |
| OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE..... | 23 |
| WHAT THE PROGRAM IS DOING..... | 24 |
| ADMINISTERING THE PROGRAM..... | 28 |
| LEGISLATIVE DEVELOPMENTS DURING THE YEAR..... | 31 |
| Provisions of the 1958 Amendments..... | 31 |
| ADVISORY COUNCIL ON SOCIAL SECURITY FINANCING..... | 35 |
| SPECIAL STUDIES REQUESTED BY THE CONGRESS..... | 35 |
| SURVEY OF RESOURCES OF OLD-AGE INSURANCE BENEFICIARIES..... | 36 |
| PROGRAM SIMPLIFICATION PROJECT..... | 37 |
| FINANCING THE PROGRAM..... | 37 |
| PUBLIC ASSISTANCE..... | 38 |
| 1958 AMENDMENTS AFFECTING PUBLIC ASSISTANCE..... | 39 |
| TRENDS IN CASELOADS AND EXPENDITURES..... | 40 |
| SIGNIFICANT TRENDS AND THEIR IMPLICATIONS..... | 43 |
| PROGRAM DEVELOPMENTS..... | 47 |
| Strengthening Services for Needy People..... | 47 |
| Related Social Welfare Activities..... | 50 |
| ADMINISTRATIVE DEVELOPMENTS..... | 51 |
| CHILDREN'S BUREAU..... | 53 |
| SOME FACTS AND FIGURES ABOUT PARENTS AND CHILDREN..... | 54 |
| PREPARATION FOR THE 1960 WHITE HOUSE CONFERENCE ON CHILDREN AND YOUTH..... | 55 |
| FEDERAL INTERDEPARTMENTAL COMMITTEE ON CHILDREN AND YOUTH.. | 56 |
| PROGRAMS OF THE BUREAU..... | 56 |
| Research in Child Life..... | 56 |
| Maternal and Child Health Services..... | 57 |

| | Page |
|---|------|
| Crippled Children's Services..... | 60 |
| Child Welfare Services..... | 62 |
| Juvenile Delinquency Service..... | 66 |
| International Cooperation..... | 68 |
| Information for Parents and Those Working With Children..... | 69 |
| FEDERAL CREDIT UNIONS..... | 69 |
| TABLE 1.—Social Security Administration: Funds available and obligations incurred, fiscal years 1958 and 1957..... | 71 |
| TABLE 2.—Financing social insurance under the Social Security Act: Contributions collected and trust fund operations, fiscal years 1956-58..... | 72 |
| TABLE 3.—Old-age, survivors, and disability insurance: Estimated number of families and beneficiaries receiving benefits and average monthly benefit in current-payment status, by family group, end of June 1958 and 1957..... | 73 |
| TABLE 4.—Old-age, survivors, and disability insurance: Selected data on benefits, employers, workers, and taxable earnings, by State, for specified periods, 1955, 1957, and 1958..... | 74 |
| TABLE 5.—Old-age, survivors, and disability insurance: Selected data on benefits, employers, workers, and taxable earnings for specified periods, 1956-58..... | 75 |
| TABLE 6.—Special types of public assistance under plans approved by the Social Security Administration: Number of recipients and average payment, June 1958, and total payments to recipients, by program and State, fiscal year 1958..... | 76 |
| TABLE 7.—Special types of public assistance under plans approved by the Social Security Administration: Federal grants to States and total expenditures and percent from Federal funds, by program and State, fiscal year 1958..... | 78 |
| TABLE 8.—Maternal and child health and welfare services: Grants to States for maternal and child health services, services for crippled children, and child welfare services under the Social Security Act, by program and State, fiscal year 1958..... | 80 |
| TABLE 9.—Federal credit unions: Number of members, amount of assets, amount of shares, and amount of loans outstanding, Dec. 31, 1935-57..... | 81 |
| TABLE 10.—Federal credit unions: Assets and liabilities, Dec. 31, 1957, and Dec. 31, 1956..... | 81 |
| CHART 1.—Trends in recipients and assistance payments in OAA and ADC, Oct. 1950-June 1958..... | 44 |

PUBLIC HEALTH SERVICE

| | |
|---|----|
| HEALTH OF THE NATION..... | 83 |
| Health Record..... | 84 |
| Births, Marriages, and Divorces..... | 85 |
| Influenza..... | 85 |
| Poliomyelitis..... | 87 |
| FUNDS AND PERSONNEL..... | 87 |
| NATIONAL LIBRARY OF MEDICINE..... | 88 |
| Improvement of Indexing Operations..... | 88 |
| Foreign Language Materials..... | 88 |
| New Building Program..... | 88 |

| | Page |
|---|------|
| Program Statistics..... | 89 |
| PUBLIC HEALTH METHODS..... | 89 |
| National Health Survey..... | 89 |
| Health Resource Studies..... | 89 |
| NATIONAL INSTITUTES OF HEALTH..... | 91 |
| CLINICAL CENTER..... | 92 |
| DIVISION OF BIOLOGICS STANDARDS..... | 92 |
| DIVISION OF RESEARCH GRANTS..... | 93 |
| CENTRAL SERVICES..... | 94 |
| INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES..... | 94 |
| Grant-Supported Research..... | 95 |
| INSTITUTE OF ARTHRITIS AND METABOLIC DISEASES..... | 95 |
| Grants and Awards..... | 96 |
| CANCER INSTITUTE..... | 97 |
| Institute Research..... | 98 |
| Grant-Supported Research..... | 99 |
| INSTITUTE OF DENTAL RESEARCH..... | 99 |
| Grants and Awards..... | 100 |
| HEART INSTITUTE..... | 100 |
| Grant-Supported Research..... | 102 |
| MENTAL HEALTH INSTITUTE..... | 103 |
| Research Projects Grants..... | 103 |
| Direct Research..... | 104 |
| Community Services..... | 104 |
| Training and Biometrics..... | 105 |
| INSTITUTE OF NEUROLOGICAL DISEASES AND BLINDNESS..... | 105 |
| Grant-Supported Research..... | 106 |
| BUREAU OF MEDICAL SERVICES..... | 107 |
| HOSPITALS AND OUTPATIENT FACILITIES..... | 107 |
| Volume of Services..... | 108 |
| Medicare..... | 109 |
| Training..... | 110 |
| Clinical Investigations..... | 110 |
| Federal Employee Health Services..... | 110 |
| Freedmen's Hospital..... | 111 |
| FOREIGN QUARANTINE..... | 112 |
| International Traffic Volume..... | 112 |
| Medical Examinations..... | 113 |
| Other Quarantine Activities..... | 114 |
| HEALTH SERVICES FOR INDIANS..... | 114 |
| Therapeutic Services..... | 115 |
| Preventive Health Services..... | 116 |
| Tuberculosis Control..... | 117 |
| Oral Health Services..... | 118 |
| Services to Mothers and Children..... | 118 |
| Training of Indians..... | 119 |
| Construction..... | 119 |
| HEALTH FACILITIES CONSTRUCTION PROGRAM..... | 119 |
| Changing Needs and Emphasis..... | 120 |
| Research in Hospital Management..... | 120 |
| Scale of Operations..... | 121 |
| Legislation..... | 121 |
| DENTAL RESOURCES..... | 121 |
| Serious Manpower Shortage..... | 121 |

| | Page |
|---|------|
| Studies of Prepayment Plans..... | 122 |
| NURSING RESOURCES..... | 123 |
| Nursing and Patient Welfare..... | 123 |
| Do Nurses "Know" Their Patients?..... | 124 |
| Professional Nurse Traineeships..... | 124 |
| Research Grants and Fellowships..... | 125 |
| MEDICAL SERVICES FOR FEDERAL AGENCIES..... | 125 |
| United States Coast Guard, Treasury Department..... | 125 |
| Maritime Administration, Department of Commerce..... | 126 |
| Bureau of Prisons, Department of Justice..... | 126 |
| Bureau of Employees' Compensation, Department of Labor..... | 127 |
| BUREAU OF STATE SERVICES..... | 127 |
| DIVISION OF GENERAL HEALTH SERVICES..... | 127 |
| State Grants..... | 128 |
| Arctic Health Research Center..... | 128 |
| National Office of Vital Statistics..... | 129 |
| Program Development..... | 129 |
| Training..... | 129 |
| Public Health Education..... | 130 |
| Public Health Nursing..... | 130 |
| DIVISION OF SPECIAL HEALTH SERVICES..... | 131 |
| Accident Prevention..... | 131 |
| Cancer Control..... | 131 |
| Chronic Disease Control..... | 132 |
| Heart Disease Control..... | 132 |
| Occupational Health Program..... | 133 |
| Radiological Health Medical Program..... | 134 |
| Tuberculosis Control..... | 134 |
| DIVISION OF SANITARY ENGINEERING SERVICES..... | 135 |
| Robert A. Taft Sanitary Engineering Center..... | 135 |
| Air Pollution Engineering Program..... | 135 |
| Engineering Resources and Training..... | 136 |
| General Engineering..... | 136 |
| Milk and Food Sanitation Program..... | 137 |
| Radiological Health Engineering Program..... | 137 |
| Water Supply and Water Pollution Control..... | 138 |
| COMMUNICABLE DISEASE CENTER..... | 139 |
| Epidemic and Disaster Aid..... | 139 |
| Representative Field and Laboratory Studies..... | 139 |
| Asian Influenza..... | 139 |
| Venereal Diseases..... | 140 |
| Poliomyelitis and the Polio-Like Diseases..... | 140 |
| Staphylococcal Infections..... | 141 |
| Viral Encephalitis..... | 141 |
| Rabies..... | 141 |
| Diarrheal Diseases..... | 141 |
| Anthrax..... | 141 |
| Plague..... | 142 |
| Laboratory Services and New Techniques..... | 142 |
| Vector Control..... | 142 |
| Training..... | 143 |
| DIVISION OF DENTAL PUBLIC HEALTH..... | 143 |
| Fluoridation..... | 143 |

| | Page |
|---|------|
| Dental Studies..... | 144 |
| DIVISION OF INTERNATIONAL HEALTH..... | 144 |
| TABLE 1.—Statement of appropriations, authorizations, obligations, and balances, fiscal year 1958..... | 145 |
| TABLE 2.—Commissioned officers and civil service personnel as of June 30, 1958..... | 147 |
| TABLE 3.—Research grants and awards, fiscal year 1958..... | 149 |
| TABLE 4.—Payments to States, fiscal year 1958..... | 150 |

OFFICE OF EDUCATION

| | |
|---|-----|
| EDUCATION IN 1958..... | 153 |
| The Office of Education..... | 154 |
| FINANCING EDUCATIONAL SERVICES..... | 156 |
| STATE SCHOOL ADMINISTRATION..... | 158 |
| SCHOOL BUILDING..... | 159 |
| SCHOOL DISTRICT ORGANIZATION..... | 161 |
| SCHOOL BOARDS..... | 162 |
| ELEMENTARY EDUCATION..... | 162 |
| Administrative Practice..... | 163 |
| Curriculum..... | 163 |
| Education of the Gifted or Talented..... | 164 |
| Education in Grades 4-5-6..... | 164 |
| Kindergartens..... | 165 |
| Exceptional Children..... | 165 |
| SECONDARY EDUCATION..... | 166 |
| PROBLEMS, NEEDS, AND TRENDS IN SCIENCE AND MATHEMATICS..... | 167 |
| Critical Problem Areas and Needs..... | 167 |
| Survey of Science and Mathematics Majors..... | 168 |
| Trends in Teaching..... | 169 |
| RETENTION OF STUDENTS..... | 170 |
| Guidance and Counseling..... | 171 |
| AUDIOVISUAL AIDS TO EDUCATION..... | 173 |
| Vocational Education..... | 174 |
| ADULT EDUCATION..... | 176 |
| INTERNATIONAL EDUCATION..... | 177 |
| Office Activities..... | 178 |
| HIGHER EDUCATION..... | 182 |
| Use and Extension of Facilities..... | 183 |
| Development and Modification of Educational Programs..... | 183 |
| Improvement of Organization and Administration..... | 183 |
| Assistance in Planning and Conducting Surveys..... | 184 |
| Legislative Proposals..... | 184 |
| Research and Studies in Higher Education..... | 185 |
| ASSISTANCE TO SCHOOLS IN FEDERALLY AFFECTED AREAS..... | 185 |
| Legislation..... | 186 |
| COOPERATIVE RESEARCH..... | 187 |
| LIBRARIES..... | 188 |
| School Libraries..... | 189 |
| Public Libraries..... | 189 |
| Library Services for the Aged..... | 190 |
| Grants for Library Services..... | 190 |

| | Page |
|--|------|
| TABLE 1.—Enrollment in the continental United States, 1956-57 and 1957-58..... | 191 |
| TABLE 2.—Supply and demand for elementary and secondary public and nonpublic school teachers, 1957-58..... | 191 |
| TABLE 3.—Grants to States: Office of Education, fiscal year 1958..... | 192 |

FOOD AND DRUG ADMINISTRATION

| | |
|---|-----|
| FOOD, DRUG, AND COSMETIC ACT..... | 197 |
| On the Food Front..... | 197 |
| Potential Health Hazards..... | 198 |
| To Keep Food Clean..... | 199 |
| Pocketbook Protection..... | 201 |
| Products of Special Dietary Significance..... | 202 |
| Drugs and Devices..... | 203 |
| Illegal Sales..... | 203 |
| Adulterated and Misbranded Drugs and Devices..... | 204 |
| New Drugs..... | 206 |
| Cosmetics and Colors..... | 206 |
| Certification Services..... | 207 |
| ENFORCEMENT OF OTHER ACTS..... | 207 |
| NEW COURT INTERPRETATIONS..... | 208 |
| CHANGES IN THE LAW AND REGULATIONS..... | 208 |
| Regulations..... | 209 |
| SCIENTIFIC INVESTIGATIONS..... | 211 |
| ENFORCEMENT STATISTICS..... | 213 |
| TABLE 1.—Actions on foods during the fiscal year 1958..... | 200 |
| TABLE 2.—Number of samples on which criminal prosecutions and seizures were based and number of court actions instituted during the fiscal year 1958..... | 214 |
| TABLE 3.—Import samples collected, examinations made, and lots detained during the fiscal year 1958..... | 214 |

OFFICE OF VOCATIONAL REHABILITATION

| | |
|--|-----|
| SERVICES TO THE DISABLED EXPAND THROUGH ENLARGED RESEARCH PROGRAM AND ATTACK ON SEVERE DISABILITY..... | 215 |
| Rehabilitations in 1958..... | 218 |
| Economic Value of the Program..... | 218 |
| DEMONSTRATION PROJECTS IN SELECTED CATEGORIES OF SEVERE DISABILITY APPLY RESEARCH FINDINGS..... | 219 |
| Selected Demonstrations..... | 220 |
| Research and Demonstration..... | 220 |
| TRAINING PROGRAM GROWS WITH EMPHASIS ON MEDICINE, SPEECH-HEARING THERAPY, PROSTHETICS, AND COUNSELING..... | 221 |
| Rehabilitation Medicine..... | 221 |
| Counseling..... | 222 |
| INCREASED STATE-LOCAL SUPPORT BRINGS A GREATER NUMBER AND USEFULNESS OF REHABILITATION CENTERS..... | 223 |
| Sheltered Workshops and Programs for the Homebound..... | 224 |

| | Page |
|---|------|
| REHABILITATION SERVICES FOR THE AGING ASSUMING IMPORTANCE AS OASI REFERRALS CONTINUE TO RISE..... | 225 |
| MENTAL ILLNESS..... | 226 |
| SERVICES TO THE BLIND..... | 227 |
| Vending Stand Program..... | 227 |
| SMALL BUSINESS..... | 228 |
| COOPERATION WITH PUBLIC ASSISTANCE..... | 228 |
| STATE PLANS..... | 229 |
| STATE ADMINISTRATION DEVELOPMENT..... | 229 |
| State Staff Training..... | 231 |
| TOTAL OF FEDERAL GRANTS..... | 231 |
| Expansion Grants..... | 231 |
| Study of Bridge Provisions for Matching Requirements..... | 233 |
| International Activities..... | 233 |
| TABLE 1.—Number of referrals and cases, by agency, fiscal year 1958.... | 235 |
| TABLE 2.—Vocational rehabilitation grants, 1958, State divisions of vocational rehabilitation..... | 237 |
| TABLE 3.—Vocational rehabilitation grants, 1958, State commissions or agencies for the blind..... | 238 |
| CHART 1.—Disabilities and major occupational groups..... | 217 |

SAINT ELIZABETHS HOSPITAL

| | |
|--|-----|
| DIVISION OF MEDICAL SERVICES..... | 240 |
| Clinical Branches..... | 240 |
| Medical and Surgical Branch..... | 242 |
| Psychotherapy Branch..... | 242 |
| Psychology Branch..... | 242 |
| Recreation Therapy Branch..... | 242 |
| Volunteer Services Branch..... | 243 |
| Occupational Therapy Branch..... | 243 |
| Social Service Branch..... | 243 |
| Nursing Branch..... | 243 |
| Medical Records Branch..... | 243 |
| Library Services..... | 244 |
| Chaplain Services Branch..... | 244 |
| DIVISION OF ADMINISTRATION..... | 244 |
| NEEDS OF THE HOSPITAL..... | 244 |
| TABLE 1.—Movement of patient population, fiscal year 1958..... | 245 |
| TABLE 2.—Consolidated statement of movement of patients, by classifica- tion, fiscal year 1958..... | 246 |

AMERICAN PRINTING HOUSE FOR THE BLIND

| | |
|--|-----|
| Services to Schools and Classes for the Blind..... | 247 |
|--|-----|

GALLAUDET COLLEGE

| | Page |
|------------------------|------|
| Kendall School..... | 249 |
| Gallaudet College..... | 249 |

HOWARD UNIVERSITY

| | |
|--|-----|
| Enrollment of Students..... | 251 |
| Geographical Distribution of Students..... | 252 |
| Veterans..... | 252 |
| Army and Air Force ROTC..... | 252 |
| The Faculty..... | 252 |
| The Building Program..... | 253 |
| Graduates..... | 253 |
| Service in Foreign Countries..... | 254 |

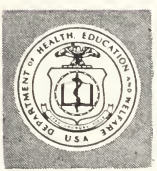
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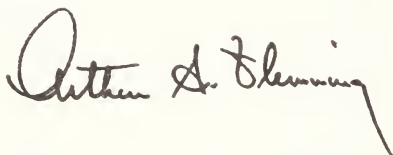
Letter of Transmittal

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,

Washington, D.C., December 1, 1959.

DEAR MR. PRESIDENT: I have the honor to submit herewith the annual report of the Department of Health, Education, and Welfare for the fiscal year ending June 30, 1959.

Respectfully,

A handwritten signature in dark ink, reading "Arthur A. Flemming". The signature is written in a cursive style with a large initial "A" and a long, sweeping underline.

Secretary.

THE PRESIDENT,
THE WHITE HOUSE,
Washington, D.C.

Regional Boundaries and Offices



Contents

| | <i>Page</i> |
|--|-------------|
| <i>Social Security Administration</i> | 1 |
| <i>Public Health Service</i> | 71 |
| <i>Office of Education</i> | 143 |
| <i>Food and Drug Administration</i> | 193 |
| <i>Office of Vocational Rehabilitation.</i> | 217 |
| <i>Saint Elizabeths Hospital</i> | 243 |
| <i>American Printing House for the Blind</i> | 253 |
| <i>Gallaudet College.</i> | 255 |
| <i>Howard University</i> | 257 |

{A detailed listing of the contents of this report, by}
{topic headings, will be found on pages 261-268.}

Social Security Administration

Social Security in 1959

IMPLEMENTATION OF SIGNIFICANT AMENDMENTS to the Social Security Act that were signed into law by President Eisenhower on August 28, 1958, highlighted program developments in fiscal year 1959. Programs were reviewed and evaluated in the light of current fluctuations in the national economy and the long-run rise in productivity. Studies of the ways in which they affect families and how the effects may be made most constructive, additional research and services which may strengthen families and communities, and technical studies relating to insurance protection against the costs of hospital and medical care were carried forward with increasing stress on long-range national goals for social welfare.

William Lloyd Mitchell, who joined the staff of the former Social Security Board in 1936 and who served for 12 years as Deputy Commissioner, was sworn in as Commissioner of Social Security by Health, Education, and Welfare Secretary Arthur S. Flemming on February 4, 1959, to succeed Charles I. Schottland.

The 1958 amendments advanced long-range national goals for social welfare in a number of ways. Among the most important, old-age, survivors, and disability insurance benefit amounts were increased in recognition of rising prices, monthly benefits were inaugurated for dependents of disability insurance beneficiaries, and the financial soundness of the program was further secured. The new formula for Federal participation in public assistance payments provided additional funds to all States for aid to the needy, more flexibility in meeting medical care and other special needs of assistance recipients, and at the same time recognized the varying fiscal capacities of the States. Federal funds allotted for child welfare services were made

available to urban areas, deleting the previous requirement that such funds be used in predominantly rural areas and other areas of special need.

Under the schedule in the law, old-age, survivors, and disability insurance benefits payable beginning with those for January 1959 were increased by about 7 percent (more at the minimum) above the levels provided since the last increase in 1954. Primarily as a result of the increase, the average for retired workers receiving benefits at the end of June 1959 was \$72.19 compared with \$65.71 a year earlier. The average monthly benefit awarded to the worker coming on the rolls in June 1959 was \$80.32 compared with \$74.03 the previous June.

The 7-percent increase largely restored the 1954 value of the benefits. At the same time, the maximum amount of earnings taxable and creditable toward benefits was increased from \$4,200 to \$4,800 effective in 1959 to restore the relationship between workers' taxable and total earnings that existed in 1954.

The new matching provisions effective October 1, 1958, in the four federally aided assistance programs were reflected in a \$6 million increase in total payments under the programs for that month. Some States raised their average monthly payments. Others that had scheduled reductions in average payments because of larger caseloads resulting from the recession were able to maintain about the same average. After reaching a peak of \$311 million in March 1959, total monthly assistance payments, including general assistance—available in some parts of all States and financed entirely from State and local funds—showed a net increase in June 1959 over the previous June of \$18 million and amounted to \$303 million in June 1959.

Toward the end of the fiscal year, improved economic conditions and favorable seasonal influences were discernible in the monthly changes in general assistance caseloads in States where this aid is available to employable persons and in the number of persons receiving aid to dependent children. Total general assistance cases declined for 3 consecutive months from 480,000 in March to 388,000 in June.

General assistance caseloads had reached a previous peak of 454,000 in April 1958, the same month that industrial production reached its lowest level during the recent recession. While part of the decline from that peak was attributable to improved economic activity, part was due to the temporary unemployment compensation program of 1958–59. This program for persons who had exhausted their regular unemployment insurance benefits paid almost \$92 million in September. For June 1959, total benefits under the program had declined to \$10 million.

The June 1959 drop in the number of persons receiving aid to dependent children was the first monthly decline for this program

in 2 years, although the 2,929,000 recipients that month was about 200,000 above June 1958 and 530,000 above June 1957. Total payments in June 1959 were made at an annual rate of \$1,000 million, compared with \$750 million in June 1957.

Continuing important trends were apparent in the number of persons receiving both old-age assistance and old-age, survivors, and disability insurance benefits. The proportion of all aged persons receiving old-age assistance declined from 18 percent in mid-1955 to 16 percent in mid-1959. At the same time, the proportion of old-age assistance recipients whose payments supplemented old-age, survivors, and disability insurance benefits increased. In mid-1959, 27 percent of old-age assistance recipients also received an old-age, survivors, and disability insurance benefit, compared with 20 percent in mid-1955.

The number of persons receiving monthly benefits under the old-age, survivors, and disability insurance program, which has made substantial progress toward universal coverage of the labor force during recent years, passed the 13-million mark in May and stood at 13.2 million at fiscal year's end. Of these, 10.7 million were age 62 or over, 275,000 were disabled workers age 50-64, 489,000 were mothers caring for a child beneficiary, and 1.7 million were entitled children.

More than 2.4 million persons were receiving old-age assistance, 2.9 million children and their adult caretakers were receiving aid to dependent children, 339,000 persons were receiving aid to the permanently and totally disabled, and 109,000 were in receipt of aid to the blind.

Over the fiscal year, social insurance, related payments, and public assistance amounted to about \$24 billion. Old-age, survivors, and disability insurance accounted for more than one-third of this total, unemployment insurance (administered by the U.S. Department of Labor and State employment security agencies) for over one-fifth, and public assistance payments for about one-seventh. Benefits paid under other public programs—such as Federal, State, and local employee retirement systems, railroad retirement, veterans' programs, workmen's compensation, and temporary disability insurance—accounted for the remainder. In June 1959, social insurance, related payments, and public assistance accounted for 6.2 percent of total personal income in the United States.

The health and welfare service programs administered by the Children's Bureau contributed to the well-being of children throughout the Nation. The Bureau administered grants to the States totaling \$43,500,000 in the cooperative Federal-State programs for maternal and child health, crippled children, and child welfare.

Preliminary figures from State reports indicated that in 1958 a new peak was reached in the number of handicapped children served

under federally aided programs for crippled children. Some 325,000 children were provided services during the year. Most of the children, 255,000, were examined in clinics; about 71,000 received physicians' services through home or office visits, approximately 53,000 were hospitalized, and 3,800 received convalescent home care.

The infant mortality rate, which edged up again slightly in 1958, lent added importance to the extension and improvement of services for promoting the health of mothers and children. Under the 1958 program, 257,000 mothers received maternity medical clinic services and public health nurses served 554,000 mothers before and after delivery. About 1,427,000 infants and other children received well-child conference services and over 3,018,000 received child health nursing service. Polio immunizations reached 5,100,000 children through maternal and child health program grants.

Further increases in the rate of unmarried parenthood and the growing problem of juvenile delinquency were again major concerns of the Children's Bureau. Within its capacity, Bureau staff provided expert consultant service and worked with a wide range of agencies in these problem areas.

The Bureau of Federal Credit Unions marked its 25th year of self-help on the anniversary of the signing of the Federal Credit Union Act in June 1934. At the end of June 1959 there were more than 9,300 active Federal credit unions with 5.4 million members and assets totaling \$2.15 billion.

The Social Security Administration had 26,322 employees at the end of June. The great majority of these employees were in district offices and other offices of the Bureau of Old-Age and Survivors Insurance.

Indicative of the constructive concern of the American people with questions of income security, health security and the adequacy of social services were plans for the decennial White House Conference on Children and Youth in 1960; establishment under the Social Security Amendments of 1958 of advisory councils to review the status and financing of the public assistance programs and the extension of child welfare services beyond rural areas; the intensive study of hospitalization insurance for old-age, survivors, and disability insurance beneficiaries made by the Department at the request of the House Ways and Means Committee; and preliminary planning for the White House Conference on Aging in 1961.

The National Committee on the 1960 White House Conference on Children and Youth met for the first time in December 1958. They discussed preliminary plans and chose the theme of the conference: "to promote opportunities for children and youth, to realize their full potential for a creative life in freedom and dignity."

The Secretary of Health, Education, and Welfare in January 1959 announced the appointment of the 12-member Advisory Council on Public Assistance to serve with the Commissioner of Social Security as chairman. The 1958 amendments provided for the establishment of the council and directed it to review "the status of the public assistance program in relation to the old-age, survivors, and disability insurance program, the fiscal capacities of the States and the Federal Government, and any other factors bearing on the amount and proportion of the Federal and State shares in the public assistance program." The council is to report its findings and recommendations not later than January 1, 1960.

The Secretary submitted the Department's study of alternative ways of providing insurance against the cost of hospital and nursing home care for old-age, survivors, and disability insurance beneficiaries to the House Ways and Means Committee on April 2, 1959. The Secretary said in his letter of submittal that the report "attempted to present the most important factual information bearing on this subject in the most objective possible manner." He also pointed out that although the report identified the arguments advanced both for and against Federal action in this area, it made no attempt "to present conclusions and recommendations based on this discussion."

Appointment of an Advisory Council on Child Welfare Services was announced on April 25. The council was established to study the effect of the 1958 amendments to the child welfare provisions of the Social Security Act and to report its findings and recommendations on or before January 1, 1960. Members of the council, which held its first meeting in May 1959, include representatives of public, voluntary, civic, religious, and professional welfare organizations and groups, as well as the general public.

The Advisory Council on Social Security Financing issued its report on January 1, 1959. The major finding of the Council was that the present method of financing the old-age, survivors, and disability insurance program is sound and that no fundamental changes are required or desirable.

At fiscal year's end, preliminary plans were underway to observe during 1960 the 25th anniversary of the August 14, 1935, signing of the Social Security Act.

International Activities

Wider Social Security Administration participation in international social welfare matters was evident in many aspects of cooperative activities with United Nations and Organization of American States agencies, with nongovernmental international groups, and with

the international committees of national social welfare associations. Staff participated in several important intergovernmental policy meetings or expert groups of intergovernmental organizations and voluntary international organizations.

Greater U.S. emphasis on the social objectives of international programs resulted in more requests for technical advice on policy. Exchange programs expanded, with requests for services from non-governmental agencies showing an increase. More U.S. social workers sought study opportunities abroad.

Prominent among the organizations to which the Social Security Administration furnished advisory and other service were the United Nations Social Commission, the United Nations Children's Fund, the International Labor Organization's Committee of Social Security Experts, and the Inter-American Economic and Social Council and the Inter-American Children's Institute of the Organization of American States.

The Social Security Administration also participated in planning for meetings of the United Nations Economic and Social Council; the United Nations Special Fund; the Commissions on Status of Women, Human Rights, and Population; and other assemblies.

A highlight of the year was the Ninth International Conference of Social Work in Tokyo, with 42 countries represented. The Social Security Administration was represented by the Commissioner, the Chief of the Children's Bureau, and the Chief of the International Service. Associated meetings included the Ninth International Congress of Schools of Social Work, the International Study Conference on Child Welfare, and the Pan Pacific Conference on Rehabilitation.

During the fiscal year the Social Security Administration's International Service planned training programs or conducted training sessions for 987 nationals of 72 countries. Applications for the training came through the International Cooperation Administration, the United Nations, the World Health Organization, and increasingly through the Department of State exchange programs, various governments and embassies, and various foundations and agencies.

Applications through the United Nations for training reflected the major trends characteristic of the evolution of social services in various parts of the world. The United Nations Bureau of Social Affairs reported that these trends in 1959 were increased government responsibility, increased emphasis on the family, continued development of assistance toward self-support, and continued emphasis on the training of social welfare personnel.

As in past years, the Social Security Administration cooperated with the International Cooperation Administration in the nomination and technical support of experts in the fields of social welfare, social in-

surance, and maternal and child health. The number of experts on duty for all or part of the fiscal year was 14.

Five officials of the Social Security Administration made a 30-day firsthand study of the social security system in the Soviet Union during August and September 1958. Officials of the Soviet Union, in turn, made a similar visit to the United States in November and December. The U.S. team consisted of the Commissioner of Social Security, the Director of the Bureau of Old-Age and Survivor Insurance, the Chief Actuary of the Social Security Administration, the Chief of the Division of Technical Training of the Bureau of Public Assistance, and the Assistant Director in charge of the Division of Disability Operations of the Bureau of Old-Age and Survivors Insurance.

Old-Age, Survivors, and Disability Insurance

Speaking at the ceremonies marking the cornerstone laying of the new headquarters building of the Bureau of Old-Age and Survivors Insurance, the Secretary of Health, Education, and Welfare referred to President Eisenhower's characterization of the old-age, survivors, and disability insurance program as the cornerstone of the Government's effort to provide for the economic security of the American worker and his family. Expressing his own belief that it is a cornerstone well-laid, the Secretary attributed the success of the program to the application of sound management principles and to the fact that, despite the size of the old-age, survivors, and disability insurance program, the Bureau has not lost sight of the individual whom the program is intended to serve.

At the close of fiscal year 1959, the number of beneficiaries receiving old-age, survivors, and disability insurance benefits reached nearly 13.2 million—about 1.3 million more than at the close of fiscal year 1958. Some of these new beneficiaries came on the rolls as a result of the Social Security Amendments of 1958, which, among other improvements, provided benefits for certain dependents of disabled workers and for some dependent parents who previously were ineligible for benefits. The new legislation also increased benefits for all beneficiaries, raised the amount of earnings taxable and creditable for benefit purposes, and provided a stepped up schedule for contribution rate increases.

During the year, the chairman of the Committee on Ways and Means of the House of Representatives appointed a subcommittee to

study the administration and operation of the social security laws. At the request of the subcommittee, information for a "Fact Book on the Disability Provisions of the Old-Age, Survivors, and Disability Insurance Program" was prepared by the Bureau and the necessary background work was begun for public hearings scheduled to start in November 1959.

The Advisory Council on Social Security Financing issued its report on January 1, 1959. The Council stated as its major finding that the present method of financing the old-age, survivors, and disability insurance program is sound and that no fundamental changes are required or desirable.

Although the 1958 amendments created new and additional workloads to which the Bureau had to give primary attention, it continued to make good progress on projects designed to bring about more efficient operations and improved service to the public. A major step forward in improving the Bureau's service to the public was the opening of a new payment center in Baltimore for the centralized processing of disability claims and foreign claims.

The biggest enterprise aimed at improving the Bureau's operations is a critical examination and appraisal of the total claims process that is being made by a central study group, composed of people drawn from positions of leadership in the Bureau and a management consultant from private industry. As a result of this project, the Bureau expects to make far-reaching changes in the mechanics of doing its job.

Work on the new Bureau headquarters building proceeded on schedule. The move to the new building early in 1960 will improve communications between the many units of the Bureau and facilitate Bureau work.

A more detailed report of the year's significant events and accomplishments is given in the following sections.

What the Program Is Doing

Beneficiaries and benefit amounts.—During the fiscal year ended June 30, 1959, benefits paid under the old-age, survivors, and disability insurance program totaled \$9,388 million. Monthly benefit payments during the 12 months were 17 percent greater than the amount for the preceding fiscal year and totaled \$9,239 million; this amount includes \$339 million paid to disabled workers aged 50-64 and their dependents. Lump-sum death payments rose 5 percent to \$150 million.

The number and amount of monthly benefits continued to rise sharply. In June 1959 almost 13.2 million beneficiaries were receiving benefits at a monthly rate of \$805.5 million—increases from June 1958

of 1.3 million in number and \$145.9 million in amount. The increase in number amounted to 11 percent, and the rise in the monthly amount to 22 percent. The sharp increase in the monthly rate was chiefly the result of the higher benefits provided by the 1958 amendments and the marked increase in the total number of beneficiaries. Among other contributing factors were (1) the repeal by the 1958 amendments of the "offset" provisions, under which disability insurance benefits were reduced by payments based on disability payable under certain other programs; and (2) the payment of monthly benefits, beginning with the month of September 1958, to wives, husbands, and children of disabled-worker beneficiaries.

Men aged 65 or over and women aged 62 or over made up 10.7 million (81 percent) of the beneficiaries—7.3 million of them were retired workers and 3.4 million were the wives and dependent husbands of retired or disabled workers and the widows, dependent widowers, and dependent parents of workers who had died. Of the remaining 2.5 million (19 percent), 1.7 million were children, some 489,000 were mothers, and 275,000 were disabled workers aged 50–64.

Almost 2.3 million monthly benefits were awarded in fiscal year 1959, only 200,000 less than the number awarded in the preceding year. New highs were reached for child's benefits (368,000), mother's benefits (91,000), and parent's benefits (6,000). Contributing to the record number of child's benefit awards were the 61,500 benefits awarded to children of disabled-worker beneficiaries. The record number of parent's benefit awards resulted mainly from the changes in the 1958 amendments that provide benefits for the dependent parents of a deceased worker even though a widow, dependent widower, or dependent child of the worker also survived.

Lump-sum death payments during 1958–59 numbered 757,000, about 20,000 more than the previous high established in fiscal year 1958. About 729,000 deceased workers were represented in these awards. The average lump-sum amount per worker represented in the June 1959 awards was \$208.59.

In June 1959, the average old-age insurance benefit paid to a retired worker who had no dependents also receiving benefits was \$68.30 a month. When the worker and his wife both received benefits, the average family benefit was \$120.60. Families consisting of a widowed mother and two children received on the average \$166.50. Among beneficiaries on the rolls at the end of June 1959, whose benefits are based on earnings after 1950, the average for a retired worker with no dependents receiving benefits was about \$77.60, for an aged couple about \$131, and for a widowed mother and two children about \$197.

Disability provisions.—During the fiscal year, 170,000 workers of all ages were found eligible to have their social security records frozen;

applications from about 165,000 workers were denied. When a worker's social security record is frozen, his insurance rights are preserved and the period when his disability prevents him from performing any substantial gainful work does not count against him in determining whether he or his survivors are eligible for benefits or in calculating the amount of the benefits. Disabled workers aged 50-64 receive monthly disability benefits calculated as though the worker had already reached retirement age at the time his disability began.

Disabled workers aged 50-64 receiving disability insurance benefits showed the largest percentage increase in the fiscal year (37 percent) and numbered 275,000 in June. About 86,000 benefits were being paid in June to dependents of disabled-worker beneficiaries. Moreover, on June 30, 1959, there were an estimated 100,000 disabled workers under age 50 with an established disability freeze.

By the end of November 1958, the latest date for which this information is available, about 56,000 persons were receiving old-age benefits that had been increased by an average \$9.51 a month as a result of having had their social security records frozen for periods while they were disabled before reaching retirement age. The higher benefits were attributable to the exclusion of a period of disability and also to the dropping of as many as 5 years of lowest earnings in the computation of the worker's average monthly wage when eligibility for such dropout stemmed from the disability freeze. About 18,200 wives and young children of retired workers and about 15,700 widows, children, and dependent parents of workers who had their social security records frozen before death were also receiving larger monthly benefits because of the freeze. For the same reason, lump-sum death payments during the 11 months ended November 1958 based on the earnings records of 10,600 deceased workers were increased by an average of \$25.94 per worker.

Child's monthly benefits are payable to totally and permanently disabled persons aged 18 or over—dependent children of deceased, disabled, or retired insured workers—whose disability began before age 18. During the fiscal year 28,000 persons met the disability requirements for child's benefits and 5,000 applications were denied. By the end of June 1959 such child's monthly benefits were being paid to 65,000 persons at a monthly rate of \$2.8 million. About 10,700 women—who would not otherwise receive benefits—were receiving wife's or mother's benefits as the mothers of disabled persons receiving child's benefits.

The protection provided.—Of the population under age 65, an estimated 69.5 million were insured at the beginning of the calendar year 1959. Some 32.0 million of these people were permanently insured—that is, whether or not they continued to work in covered jobs, they will be eligible for benefits when they reach retirement age, and

their families are assured of protection in the event of their death. (Included in this total were some three-fourths of a million women aged 62-64 who were already eligible for old-age benefits but on a reduced basis.) The remaining 37.5 million were insured but would have to continue in covered work for an additional period to make their insured status permanent. Nine out of ten of the mothers and young children in the Nation were assured that they would receive monthly benefits in case of the death of the family breadwinner. An estimated 44 million of the insured persons under age 65 also met the work requirements for protection against the risk of long-term and severe disability.

Of the 15.4 million people aged 65 or over in the United States at the beginning of 1959, 70 percent were eligible for benefits under the program. Sixty percent were actually receiving benefits, and 10 percent were not receiving benefits because they or their husbands were receiving substantial income from work. The percentage of aged persons who are eligible is expected to rise to 75 percent by 1961.

The coverage of the program.—An estimated 73 million persons will have worked under old-age, survivors, and disability insurance during the calendar year 1959. Furthermore, about 1.3 million persons employed in the railroad industry had, in effect, joint coverage under the railroad retirement and old-age, survivors, and disability insurance programs. Altogether, including State and local government and non-profit employees for whom coverage is available on a group-election basis and members of the Armed Forces, nine-tenths of all persons in paid employment in the continental United States were covered or could have been covered by old-age, survivors, and disability insurance in June 1959.

Of workers not eligible for coverage, about one-third were covered by other public retirement programs—Federal, State, or local. The remaining two-thirds—7 percent of the Nation's paid employment—were not covered by any public retirement program. Those without retirement protection under a public system consisted principally of self-employed persons whose annual net earnings were less than \$400, and of domestic and farm workers who did not earn sufficient wages from any one employer to meet the minimum coverage requirements of the law.

Income and disbursements.—Expenditures from the Federal Old-Age and Survivors Insurance Trust Fund during the fiscal year totaled \$9,380 million, of which \$9,049 million was for benefit payments, \$124 million in transfers to the railroad retirement account and \$206 million, including Treasury Department costs, for administrative expenses. Total receipts were \$8,109 million including \$7,565 million in net contributions and \$543 million in interest on investments. Dis-

bursements exceeded receipts by \$1,271 million, the amount of the decrease in the trust fund during the year. At the end of June 1959 this fund totaled \$21.5 billion.

Total assets of the old-age and survivors insurance trust fund, except for \$1,067 million held in cash, were invested in United States Government securities as required by law; \$3.3 billion were invested in public issues (identical to Treasury securities owned by private investors), and \$17.2 billion were invested in securities of varying maturities issued for purchase by the trust fund. The average interest rate, figured on the coupon rate and face amount of all investments of this fund at the end of the fiscal year, was 2.61 percent.

The Federal Disability Insurance Trust Fund was created by the Social Security Amendments of 1956. Contributions to this fund first became payable in January 1957. Benefit disbursements began in August 1957. Expenditures from the Federal Disability Insurance Trust Fund during the fiscal year totaled \$361 million, of which \$339 million was for benefit payments and the remainder—some \$21 million—for administrative expenses. Total receipts were \$928 million, including \$895 million in net contributions and \$33 million in net interest. Receipts exceeded disbursements by \$567 million, the amount of increase in the fund during the year. At the end of June 1959, the fund totaled \$1,666 million.

Assets of the disability insurance trust fund consisted of \$1,607 million in U.S. Government securities and a cash balance of \$59 million. The invested assets consisted of \$73 million in public issues and \$1,533 million in securities of varying maturities issued for purchase by the trust fund. The average interest rate figured on the coupon rate and face amount of all investments of this fund at the end of the fiscal year was 2.63 percent.

Administering the Program

Planning for fiscal year 1959 called for a reassessment of Bureau operations and administration with the objectives of improving their overall quality and of providing better service to the public. This preliminary planning was based on anticipation of a period of comparative workload stability and relief from the operating pressures which have prevailed over the last decade, a period of rapid program expansion.

However, enactment of the Social Security Amendments of 1958 precluded following through completely on original plans. The new amendments, containing significant and far-reaching changes, immediately increased the volume of work for the Bureau during the fiscal year. To absorb the added workloads and effectuate the changes

in the law promptly and efficiently, the Bureau had to modify its immediate objectives.

The recruitment and training of new personnel was the first problem to be met. Additional personnel requirements were measured against expected workload increases, workload carryover from the previous year, recruitment possibilities, Bureau capacity to effectively train and absorb the added staff, and anticipated workload levels after 1959. In balancing these factors, a recruitment objective of about 3,300 employees was established; about 2,800 of these represented permanent staff. Employment at the end of the year was 25,283, a figure fairly close to the staff required to continue Bureau operations in subsequent years under the present program. Approximately 1,000 of the new personnel are district office employees who serve the public directly in the development of claims for old-age, survivors, and disability insurance benefits.

A major task resulting from the 1958 amendments was the conversion of benefit amounts for approximately 12 million old-age, survivors, and disability insurance beneficiaries. Benefit rates had to be recomputed and adjusted quickly enough to permit timely issuance of the January benefit checks dated February 3, 1959. The Bureau was able to meet this conversion schedule because of a previous decision to record basic benefit data on magnetic tape which permitted development of statistical data by electronic equipment. The growing number of beneficiaries had made it increasingly time-consuming and expensive to process and tabulate benefit data by conventional methods. The use of magnetic tape provides a more rapid and economical way to obtain benefit data and greatly facilitates the processing of changes in benefit amounts brought about by new legislation.

Immediately upon enactment of the new amendments, the Bureau was faced with the job of making the August checks (issued in September) of about 38,000 disability beneficiaries reflect the increased amounts brought about by elimination of the offset provision. (Under this provision, disability benefits had been suspended, or reduced by the amount of any periodic benefits payable to an individual on account of disability under certain other Federal programs or under State workmen's compensation programs.) Through use of the magnetic tape the Bureau met its deadline.

To assist the Office of Hearings and Appeals in its efforts to process an extensive backlog of appealed cases which had developed during the year as a result of high initial filings under the amendments establishing the disability program, the Bureau recruited from its employees 34 individuals with law degrees and with experience in the adjudication or review of old-age, survivors, and disability insurance claims to serve as referees in various cities throughout the country on a temporary basis.

During the fiscal year, the Bureau received more than 2,507,000 claims for old-age and survivors insurance benefits and almost 424,000 claims for disability insurance benefits and the disability "freeze." More than 3,236,000 new social security accounts were established and over 2,788,000 duplicate account number cards were issued during the year. In addition, over 255,000 earnings items were received for posting to individual accounts. The Bureau also processed about 2,514,000 requests for changes in records and issued approximately 1,127,000 statements of earnings.

The new payment center in Baltimore which was established for the centralized processing of disability and foreign claims was opened on September 2, 1958. The transfer of workloads from the other payment centers was successfully carried out on a staggered schedule over an 8-month period.

Substantial progress has been made toward additional expansion early in fiscal 1960 in the use of electronic equipment in the earnings report process. A number of programs and procedures have been completed and tested on new high-speed Model III 705 machines at the IBM factory. When the new equipment is installed, virtually all the earnings records operations, with the exception of the initial keypunching, will be done electronically.

The Bureau also continued its study in fiscal 1959 of the application of electronic data processing to its administrative operations, including the areas of payroll, procurement and property management, personnel statistics, and accounting. Since initial findings indicate that potential economies and improvements may be realized through the utilization of IBM Type 705 data processing equipment, plans have been made for fiscal year 1960 to develop conversion and programming procedures for those areas most adaptable to automatic data processing.

A magnetic tape file of approximately 4 million employer names and addresses was established for all Internal Revenue Districts early in the fiscal year; it will be updated on a quarterly basis. The major benefit of this magnetic tape file is a more efficient and less costly method of addressing correspondence to employers than was possible under the former Addressograph plate system. Estimated savings of \$175,000 per year are anticipated.

The Bureau continues to encourage employers who are using electronic data-processing systems compatible with Bureau electronic equipment to submit quarterly wage reports on magnetic tape thereby eliminating the necessity for key punching the earnings items. Eight employers who report approximately 85,000 earnings items quarterly are now reporting all, or part, of their earnings information by this means. Another large industrial concern will submit tape for about

36,000 of its salaried employees. Three additional employers will submit tape reports in the future. One of these is the Department of the Army which reports about 1 million earnings items each quarter. The magnetic tape reporting system was also discussed with officials of New York City. If necessary clearances are obtained, about 100,000 New York City employees will be reported on tape.

During the year the National Employee Index File of account number holders was converted from flexoline strips to microfilm. This operation involved the removal and photographing of about 160 million flexoline strips. Less than 2,400 film cartridges are required to store the entire index file which formerly used over 1.3 million flexoline panels; space requirements for this file have been reduced by about 16,000 square feet.

Plans were made during the year for the Baltimore Payment Center to use electronic data processing in its accounting and certification processes. Accounting and payment records for disability cases will henceforth be placed on magnetic tape. Data from the magnetic tape will be transferred to tabulating cards which the Treasury Department will use in the preparation of disability insurance checks for September 1959. The new tape not only provides an accounting control but also permits electronic updating of beneficiary rolls. It has enabled the Treasury Department to convert its disability payment records from Addressograph plates to tabulating cards.

A major development in improving Bureau operations is the carrying out of plans for a detailed study of the entire old-age, survivors, and disability insurance claims process from receipt of the application to certification for payment. A major objective of the study will be the development of new and improved clerical and mechanical systems and methods for acquiring and processing the data needed to complete a claim. A Central Study Staff of Bureau officials and a management consultant from private industry was established to make an exhaustive examination of the claims process. The study began in January 1959 and will be continued in fiscal 1960.

Bureau participation in international activities and meetings has been increasing over the last few years, particularly in providing program orientation to visiting officials of foreign social insurance systems and in developing and maintaining sources of information about the old-age, survivors, and disability insurance program abroad. Increased attention will be given to this important and growing activity. During the fiscal year the Bureau received 141 visitors from 29 countries. The visitors came as individuals and in groups for visits varying from one day to several weeks. The programs arranged for these visitors included participation by all parts of the Bureau.

Early in the fiscal year the Director of the Bureau and the Assistant

Director in charge of the Division of Disability Operations accompanied three other officials from the Social Security Administration to the Soviet Union to study their social security system under the East-West Cultural Exchange Program. In November 1958, a five-man Soviet team came to the United States in return, visiting the Bureau's Central Office, several field installations, various State and local government and private social agencies, and other organizations throughout the country.

A delegation consisting of six social security officials from France also visited the Bureau during a 5-week tour of the United States. They were here to observe and discuss old-age, survivors, and disability insurance program operations and administration; their interest covered every phase of Bureau operations. After visits to the New York Payment Center and a district office in Chicago, the group spent 7 days in the Bureau's Baltimore offices.

In June, two Bureau representatives went to Europe to conduct a 4-month examination of problems pertaining to the administration of the old-age, survivors, and disability insurance program in Greece, and to explore ways and means of facilitating the claims process and services to claimants and beneficiaries in Greece and other European countries.

On March 9, 1959, the House of Representatives adopted H. Res. 182, which authorized the House Committee on Ways and Means to study or investigate matters which come under its jurisdiction. Acting upon the resolution, the committee established three subcommittees, one of which will study administration of the social security laws. In preparation for this study, the Director appointed an Assistant Director to serve as coordinator within the Bureau and as a liaison person with the subcommittee. He was assisted by a small staff in the development of information requested by the subcommittee, covering processing times, pending loads, types of cases, rules and regulations, policies and procedures, and other materials, with emphasis on the disability program.

Last year the Treasury Department advised the Bureau that it planned to revoke the delegation under which the Birmingham Payment Center had been writing and issuing old-age and survivors insurance benefit checks since July 1955. The administrative problems connected with the change were solved and transfer of the check-writing function to the Treasury Department was accomplished in an orderly manner.

During the year departmental approval was received for the establishment of a new division in the Bureau; the Division of Public Information and Personnel Management, which became operative early in fiscal 1960. It was organized to consolidate functions relating

to training, personnel, employee health, public information, and employee communications. The new organizational grouping, designed to help the Bureau meet its greatly enlarged responsibilities, permits full coordination of the management areas affected.

Work on the new Bureau Building on the outskirts of Baltimore has proceeded on schedule. Tentative completion dates of January 15, 1960, for the Operations Building, and February 3, 1960, for the Administration Building have been established.

In May 1959, congressional approval was granted for an addition to the new building to house the Baltimore Payment Center and the Division of Disability Operations. The establishment of these organizations has increased space needs beyond the capacity of the new building as originally planned in 1953. Plans and specifications are being developed in preparation for requesting bids for construction.

Total administrative expenses of the old-age, survivors, and disability insurance program in fiscal year 1959 amounted to approximately \$216 million, exclusive of \$11.6 million for costs of the new building. Of the \$216 million, about \$41 million was incurred by the Treasury Department for the collection of social security taxes, preparation of checks for beneficiaries, and related activities. These administrative expenses amounted to approximately 2.55 percent of tax contributions and 2.30 percent of benefit payments.

Legislative Developments During the Year

No major legislation affecting old-age, survivors, and disability insurance has been enacted since the Social Security Amendments of 1958 (Public Law 85-840) became law in the closing days of the 85th Congress. While a substantial number of bills were introduced during the 1st session of the 86th Congress, only a single bill in the field of old-age, survivors, and disability insurance legislation has been acted upon in the Congress. This is H.R. 213 (Public Law 86-284), approved on September 16, 1959. This new legislation would (1) reinstate, through 1961, an expired provision of law permitting nine specified States to cover nonprofessional school district employees under special circumstances; (2) add the States of California, Kansas, North Dakota, and Vermont to the list of States which may cover employees in policemen's or firemen's positions under a retirement system; and (3) permit the coverage, under special conditions, of a few policemen in Oklahoma who have erroneously been reported as covered.

HEARINGS ON HOSPITALIZATION INSURANCE FOR OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE BENEFICIARIES

In compliance with the request made by the Committee on Ways and Means of the House of Representatives in its report to accompany

H.R. 13549 in July 1958, the Department submitted a report on "Hospitalization Insurance for OASDI Beneficiaries" in April 1959. The report included factual information resulting from a study of alternative ways of providing insurance to finance hospital and nursing home care for old-age, survivors, and disability insurance beneficiaries, and a listing of arguments for and against action in this area.

Shortly after the close of fiscal 1959, the Committee on Ways and Means held public hearings on H.R. 4700, the Forand bill, which would amend the Social Security Act to provide insurance against the cost of hospital, nursing home and surgical services for persons eligible for old-age and survivors insurance benefits and for dependents of disability insurance beneficiaries. Secretary Flemming presented testimony for the Department. Representatives of more than 80 organizations testified, including representatives of the medical profession, business, labor and health insurance plans. The committee did not take any action on this or similar bills. However, the Department is making a thorough study of proposals to stimulate the extension of voluntary health insurance coverage of the aged to determine whether it is possible to develop a practicable and desirable plan for Federal action to accomplish this purpose.

RAILROAD RETIREMENT LEGISLATION

The railroad retirement and old-age, survivors, and disability insurance programs are closely coordinated. Amendments to the Railroad Retirement Act enacted in May 1959 (Public Law 86-28) provided a 10-percent increase in the amount of benefits payable under the railroad retirement program, including benefits payable under the "social security minimum" provision of the Railroad Retirement Act. (Thus, this now guarantees that the total amount of the benefits payable to a railroad worker and his family will be at least 10 percent more than the amount which would have been payable if the worker's railroad employment had been covered under the social security program.) The wage and tax base of the program was raised from \$350 to \$400 per month; this amendment placed the wage bases of the two programs at a comparable level. The amendments also increased the contribution rates of the railroad retirement program, and provided for increases in rates for years after 1964, geared to increases in old-age, survivors, and disability insurance tax rates.

The Advisory Council on Social Security Financing

The Advisory Council on Social Security Financing, appointed by the Secretary of Health, Education, and Welfare in October 1957, continued to meet during calendar year 1958 and issued a unanimous

report on January 1, 1959. The Council's major finding was that—The method of financing the old-age, survivors, and disability insurance program is sound, and, based on the best estimates available, the contribution schedule now in the law makes adequate provision for meeting both short-range and long-range costs.

The Council endorsed the principle that employees, employers, and the self-employed should contribute toward the cost of the system. It recommended that increases in social security taxes now scheduled for 1959, 1960, and 1963 should go into effect and stated its belief that it will prove desirable to have the scheduled 1966 rate go into effect as well. The Council was doubtful whether the last scheduled rate increase—the one scheduled for 1969—should go into effect at that time; it did not recommend that any change be made now in the contribution schedule, but recommended that future advisory councils study the question.

The Council believed that after the contribution rate scheduled for 1966 goes into effect future decisions about rate increases, if any, should be guided largely by estimates of income and disbursements over the ensuing 15 or 20 years. However, the Council endorsed the present practice of including in the law a contribution schedule which, according to long-range cost estimates, places the system in actuarial balance into the indefinite future.

The Council's recommendations “. . . look toward a continuing review of the financial arrangements so that they, along with the other provisions of the program, can be kept sound and workable in a changing economy.” The Council said, “. . . we believe there is a need for periodic scrutiny of all factors which in any way affect the financing of the program. These factors include the maximum earnings base for determining benefits and contributions.”

As a result of the 1958 amendments, the maximum earnings base was increased from \$4,200 to \$4,800 on January 1, 1959. The Council did not recommend any further change in the base, but assumed that “. . . further consideration will be given to this maximum after the effect of the \$4,800 figure has been evaluated.” The Council pointed out that the earnings base determines the proportion of the Nation's payrolls available to finance the program and is a major factor in determining the extent to which the program pays benefits reasonably related to the past earnings of the individual.

The Council recommended changes in the provisions governing the interest rate to be paid on Government bonds issued solely for purchase by the old-age and survivors insurance and disability insurance trust funds, indicating its belief that “. . . the rate of return on trust fund investments in special issues should be comparable to what the Treasury would have to pay for long-term money if borrowed from

other investors. Such a rate of return seems to us the way to avoid either a financial advantage or disadvantage to the funds."

The Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds considered the recommendation of the Council and in their 19th Annual Report recommended adoption of a modified set of recommendations.

Special Studies Requested by the Congress

The Committee on Ways and Means of the House of Representatives had requested the Department to look into several problems concerning the old-age, survivors, and disability insurance program. One problem which the Bureau is studying intensively is how workers who get a substantial part of their work income in the form of tips can have those tips counted toward benefits. Another problem under study concerns what changes, if any, should be made in the retirement test provisions of the program, with particular attention to the provision which makes it possible for a beneficiary to receive benefits for some months in a year even though he may have had high earnings during the year.

Surveys of Resources of Old-Age, Survivors, and Disability Insurance Beneficiaries

In order to appraise the adequacy of old-age, survivors, and disability insurance benefits, it is necessary to know what resources beneficiaries have in addition to their benefits. Beginning in 1941 and continuing through 1957 the Bureau of Old-Age and Survivors Insurance conducted a series of cross-section surveys of persons on the rolls in a given month to obtain information on the source and amount of their other income, home ownership, miscellaneous assets and liabilities. In addition, information is obtained concerning family composition and living arrangements, and on expenditures such as those for housing and medical care costs and health insurance coverage.

The cross-section surveys provide a picture of the economic situation of beneficiaries in a given year, but they do not tell what happens to retired people over the course of years. To determine how the socioeconomic situation of beneficiaries changes after they come on the benefit rolls, the Bureau is embarking on a retirement history study in which a sample of persons will be interviewed shortly after they come on the benefit rolls and information will be obtained on their situation in the year before they filed for benefits. They will be interviewed a year later to obtain a record of their first year's

experience after filing for benefits. Subsequent resurveys will be made every 2 or 3 years over a period of 12 years in order to learn how their situation changes with time and what adjustments they make to these changes. The initial survey in the retirement history study is planned for the spring of 1960 and the first resurvey for the fall of 1961.

Little is known about the economic situations of persons drawing disability benefits and persons under age 50 who have been awarded a freeze of their wage records. A field survey of disabled persons is scheduled for the fall of 1960; it will provide not only current information on their economic situation but also the data required for planning and carrying out a longitudinal study of a sample of disabled persons.

Because of the importance of beneficiary surveys in connection with proposed legislation and use of the findings by persons outside the Department, the program of surveys of the socioeconomic situation of old-age, survivors, and disability insurance beneficiaries and potential beneficiaries is being expanded.

Program Simplification Project

The Bureau continued to make progress in developing legislative proposals which would make the old-age, survivors, and disability insurance program easier to understand, accept, and administer. Proposals developed last year for simplifying benefit computations and the retirement test were enacted into law in the 1958 amendments and, subsequent to the amendments, proposals were developed to simplify: (1) the coverage provisions for State and local employees; (2) lump-sum death payments; and (3) the dependency requirements for auxiliary beneficiaries.

As a result of an extensive line-by-line review of the law, which was begun last year, proposals were also developed to simplify other areas of the program. In conjunction with the line-by-line review, the first steps were taken towards a comprehensive recodification of the law to make it more readable and easier to work with.

Two subjects brought under study late this year will be further examined during the next year—the family relationship requirements for auxiliary beneficiaries and the insured status requirements for entitlement to benefits.

Financing the Program

In modifying the schedule of contributions under the old-age, survivors, and disability insurance program at the time it enacted the amendments in 1958, Congress again made clear its intent that the

program be self-supporting from contributions of covered workers and employers. The revision in the schedule was arrived at after careful review of long-range actuarial cost estimates prepared for use of the congressional committees in their legislative considerations.

Old-age and survivors insurance benefits.—The level-premium cost of old-age and survivors insurance benefits after 1957, on an intermediate basis, assuming interest at 3 percent and earnings at about the levels that prevailed during 1956, is estimated at 8.27 percent of payroll (after adjustments to allow for administrative expenses and interest earnings on the existing trust fund). The level contribution rate, equivalent to the graduated rates in the law, is estimated at 8.02 percent of payroll, leaving a small actuarial insufficiency of 0.25 percent of payroll. In view of the very long range over which these projections are made, and the many variable factors included, the insufficiency is so small that the system may be considered in close actuarial balance.

Disability insurance benefits.—The Social Security Amendments of 1956 established a system for financing disability benefits which is entirely separate from the financing of old-age and survivors insurance benefits. The level-premium cost of the disability benefits and the applicable administrative expenses on an intermediate basis is 0.49 percent of payroll. Contribution income has been specifically allocated to finance these benefits; this income is equivalent to 0.50 percent of payroll, thereby producing an actuarial surplus of 0.01 percent of payroll.

Continuing review of cost estimates.—The difficulties involved in making exact cost estimates as to the actuarial status of a program that reaches into the distant future are widely recognized. If different assumptions as to, say, interest, mortality, retirement, disability, or earnings had been used, different results would have been obtained. Accordingly, no one set of estimates should be looked upon as final. The Department, in carrying out its policy of continually reexamining the long-range cost estimates of the program in the light of the latest information available, is now in process of a complete review and revision of its cost estimates.

Public Assistance

The establishment by the Congress in 1958 of an Advisory Council on Public Assistance to review the status of the public assistance programs, and the approach of the 25th anniversary of the Social Security Act, made 1959 a year of thoughtful evaluation of progress under the public assistance programs in helping meet needs of the American people over the past quarter century. Study of many

facets of the program to provide basic data needed by the Advisory Council has also helped to clarify the role of public assistance within the economic and social framework of the Nation, and to delineate more sharply the problems ahead.

The influence of both self-evaluation and study was reflected in other activities of the Bureau of Public Assistance and State public assistance agencies during the past year.

Trends in Caseloads and Expenditures

About 6.8 million people in the United States were dependent on some form of public assistance in June 1959. These people—about 4 out of every 100 in our population—were ineligible for benefits provided by other public programs, or, if eligible, received amounts insufficient to meet minimum needs.

The total number receiving public assistance under federally aided programs included 2.9 million dependent children and their caretakers receiving aid to dependent children—the largest assistance group since 1957; 2.4 million persons receiving old-age assistance; 339,000 receiving aid to the permanently and totally disabled; and 109,000 receiving aid to the blind. In addition, about 1.0 million persons (in 388,000 cases) received State and/or locally financed general assistance.

The total number of persons receiving assistance in June 1959 was about 100,000 more than in June 1958. General assistance and old-age assistance were the only programs with smaller caseloads in June 1959 than in June 1958. The larger decline—13.2 percent (153,000 persons)—occurred in general assistance programs, the type of aid most sensitive to seasonal factors and changes in economic conditions. The decline in old-age assistance from June 1958 to June 1959 was 1.6 percent (40,300 persons). The increase in aid to the blind was only slight. In aid to the permanently and totally disabled it was 8.5 percent. In aid to dependent children the increase of 195,800 recipients (including 154,800 children) from June 1958 to June 1959 represented a 7.2-percent increase in total recipients and a 7.4-percent increase in children. The increase, however, was less than three-fifths of that occurring in the previous year.

Why they are needy.—Most people receiving public assistance are struggling not only with problems of inadequate income, but also have other serious personal difficulties contributing to their dependency. For example, half the 2.4 million persons receiving old-age assistance are over 75, an age when only a few are likely to be employed. Three out of five are women; many are widows who have never been employed. While two out of three of the aged recipients live in their own homes and most of them are able to be up and about,

some are seriously ill. One in thirty is confined to bed at all times; and 1 in 20 lives in an institution, usually a private nursing home.

The 2¼ million children receiving aid to dependent children are needy because of the death, disability, or absence of a parent. The typical family consists of 3 young children and a mother in her middle 30's. Many suffer from emotional conflict, hardship, and instability in their family life, for most of the children live in homes where one parent has deserted or where the parents are separated, divorced, or never married.

Of persons receiving aid to the blind, half are over 63 years of age. Most have been blind about 20 years and are totally blind or have very limited vision. About 5 out of 8 blind recipients are men. All persons receiving aid to the disabled have disabilities defined as both permanent and total. Most of them have more than one impairment, with heart disease the most frequent. About 2 in 10 are so seriously disabled that they cannot leave their homes. Women slightly outnumber men.

Of the 1.0 million persons who receive general assistance, an estimated 76 percent are in family cases, and 24 percent are single person cases. Need is usually related to unemployment, ineligibility for or exhaustion of unemployment compensation benefits, wages or unemployment compensation benefits insufficient to meet basic family needs, temporary illness or partial incapacity, inability to meet State residence or other eligibility requirements of other assistance or social insurance programs, or to special needs which cannot be met within these other programs.

The number of general assistance recipients does not reflect the full extent of need not covered by federally aided assistance programs; it represents only the portion which States and localities are able and willing to meet. In most States general assistance is provided only to unemployable persons; nonresidents are aided only in emergencies with arrangements made for return to their State of residence as quickly as possible. Some States provide no financial assistance to employable persons and their families.

How much assistance they receive.—The Social Security Act requires that in determining the need of each individual requesting assistance consideration be given to any other income and resources he may have (except that in the aid to the blind program the first \$50 of earned income must be disregarded). Each State is responsible for determining who are "needy" people and how much they will receive under a given program. States differ both in their definition of need and in the degree of responsibility they accept for meeting need as determined under the various assistance programs. One State may provide for some medical needs in its old-age assistance program, but

not in its aid to dependent children program, while another State may make no provision for medical needs under any of its assistance programs. Thus the amount of assistance provided to a needy person may vary from State to State and among programs within a State.

For example, the national average payment per recipient of old-age assistance in June 1959 was \$64.76 but average payments ranged from a low of \$29.83 in Mississippi to a high of \$110.17 in Connecticut (except for \$8.20 in Puerto Rico and \$23.40 in the Virgin Islands). The national average payment per recipient of aid to the blind was \$69.04, with payments ranging from a low of \$35.33 in Alabama to a high of \$117.35 in Massachusetts (except for \$8.25 in Puerto Rico). For aid to the permanently and totally disabled, the national average payment was \$63.37 per recipient with payments ranging from \$29.95 in Mississippi to \$134.95 in Connecticut (except for \$8.85 in Puerto Rico and \$25.64 in the Virgin Islands).

The national average payment per recipient of aid to dependent children, \$28.39 (with State averages ranging from \$7.02 in Alabama to \$47.53 in Connecticut, except for \$4.09 in Puerto Rico), is much less than national average payments in the other federally aided programs; e.g., as indicated above, the national average payment per recipient of old-age assistance is \$64.76, with a range from \$29.83 to \$110.17.

The relatively lower national average payment of \$65.79 *per case* in the general assistance program in June 1959—41 percent are family cases including an average of 4.5 persons per family—compared with the national average payment of \$64.76 *per recipient* in old-age assistance is undoubtedly indicative of the difficulty some States have in financing general assistance programs without Federal aid. Average payments *per case* in the general assistance program ranged from \$12.43 in Alabama to \$99.40 in New Jersey (except for \$7.06 in Puerto Rico). Limited funds and stringent standards applied in determining the degree of destitution before general assistance is granted result, in many instances, in a level of subsistence far below even a minimum standard of "health and decency."

Total assistance payments in fiscal 1959 were \$323 million higher than in fiscal 1958 (\$3,574 million compared with \$3,251 million). But average payments per recipient in June 1959 compared with a year earlier showed increases of only \$3.38 in old-age assistance, \$2.32 in aid to the blind, \$2.68 in aid to the permanently and totally disabled, \$1.11 in aid to dependent children, and \$4.22 *per case* in general assistance. Some of the increase in total expenditures was due to the increased number of persons receiving assistance, but part of it was related to the availability of additional Federal funds under amendments to the Social Security Act in 1958.

Use by States of additional Federal funds in 1958.—Most States used the additional funds to increase individual payments, and more than half the States with maximums on individual payments in old-age assistance, aid to the blind, and aid to the permanently and totally disabled either increased or removed their maximums; fewer States took similar action in aid to dependent children. A few States eliminated reductions that had been applied to payments or made the reductions less stringent. Most States also revised their cost standards to reflect current prices to a greater degree, and a few States added new items to their assistance standards. This use of additional Federal funds available October 1, 1958, was reflected in increases in average payments per recipient from September 1958 (the month immediately preceding its availability) to December 1958 of \$2.37 in old-age assistance, \$1.28 in aid to the blind, \$1.66 in aid to the permanently and totally disabled, and \$.82 in aid to dependent children.

Many receive both assistance and social insurance benefits.—Public assistance is used to supplement social insurance benefits that are not large enough to meet the beneficiary's basic needs. It is also used to meet special needs, such as medical care, of those whose insurance benefits and other personal resources are insufficient to meet this additional expense.

The number of beneficiaries receiving old-age assistance to supplement their social insurance benefits continued to increase. About 27 percent or 660,000 persons were receiving old-age assistance to supplement social insurance benefits in June 1959. The average assistance payment supplementing benefits in March 1959 (the latest date for which data are available) was about 25 percent lower than payments to other aged persons (\$51.97 compared with \$68.74). Similarly, the insurance benefit received was about 35 percent lower than the average benefit for all aged beneficiaries, with a considerable number getting no more than the minimum benefit. A survey in 1957 of beneficiary resources shows that, for the beneficiaries studied, it was only when assistance was added to their benefits and other resources that the total income per beneficiary-recipient approached the average for all aged beneficiaries. The same survey reveals that in comparison with other aged beneficiaries, more of those also receiving assistance were in poor health and therefore more likely to have high medical costs and a higher incidence of hospitalization, but had little or no income from earnings, assets, or contributions from relatives.

In contrast to old-age assistance, however, the percentage of recipients of other types of public assistance who also receive old-age, survivors, and disability insurance benefits is considerably smaller. Although the number of families receiving both insurance benefits and aid to dependent children has increased in the last year, the

proportion they represent of all aid to dependent children families remained the same. The 41,900 families receiving both insurance benefits and aid to dependent children represented 5.4 percent of all families receiving aid to dependent children in March 1959.

Similarly, the number receiving both assistance and insurance benefits is estimated to be only about 8 percent of those receiving aid to the blind and 5 percent of those receiving aid to the permanently and totally disabled. Although many of the assistance recipients in these two programs meet the disability requirements for insurance benefits, very few have the necessary work experience to qualify for benefits. Also, since half of the needy blind are 65 years of age or over, the majority of the 8 percent also receiving insurance benefits are undoubtedly receiving benefits for reasons other than disability since the age requirement for disability insurance is between 50 and 65 years of age.

Source of funds for public assistance.—Of \$3,574 million expended for public assistance in fiscal 1959, about 52 percent or a little over \$1,848 million in Federal funds supplemented 36 percent, or \$1,281 million from the States and 12 percent, \$445 million, from the localities for old-age assistance, aid to dependent children, aid to the blind, and aid to the permanently and totally disabled. The States and localities alone paid the estimated \$426 million spent under general assistance programs.

For the special types of public assistance, the Federal share of total costs was 59 percent; the State share, 33 percent; and the local share, 8 percent.

Program and Administrative Developments

Program developments in public assistance are closely related to public concern with economic and social factors contributing to dependency and to the increasing recognition of the long-run economy of activities directed toward prevention and rehabilitation. These objectives are emphasized in the 1956 amendments to the Social Security Act which reaffirmed the importance of providing other social services to help needy people make fuller use of their capacities for more independent living; and in the 1958 amendments which made possible increased Federal participation in financial assistance to needy people.

Through joint Federal-State efforts during the past year considerable progress has been made in utilizing the 1956 and 1958 amendments to strengthen State public assistance programs and thus to serve needy people more effectively. These efforts are reflected especially in activities directed toward extending medical care to public assistance recipients.

Improving medical care for public assistance recipients.—A large proportion of persons receiving public assistance have unusually heavy medical needs resulting from disability, chronic illness, or the infirmities of old age. Some are forced to seek assistance primarily because they need medical care. In June 1959, the federally aided public assistance programs were helping 1.6 million persons whose need was attributed primarily to disability, chronic illness, or severe infirmities of old age. This number included 339,000 persons receiving aid to the permanently and totally disabled; 109,000 persons receiving aid to the blind; 756,000 persons receiving aid to dependent children because of need due to the incapacity of a parent; and some 431,000 old-age assistance recipients—nearly a fifth of the total—who were bedridden or required a substantial amount of care from others because of some physical or mental impairment. In addition, a substantial proportion of the other 2 million aged recipients caring for their own daily needs no doubt had health and other problems related to advanced age.

Traditionally, public welfare agencies have provided some medical care to needy persons through staff or “county” physicians, by operating institutions, or by paying for medical care. Until 1950, medical care costs could be paid in part from Federal funds only if these costs were included in money payments made to recipients. In 1950, an amendment to the Social Security Act also permitted Federal financial participation in costs of medical and remedial care paid on the recipient’s behalf to suppliers of services—hospitals, doctors, druggists, nursing homes, etc. The quantity and quality of medical care that could be provided to assistance recipients, however, were affected to some extent by State and Federal maximums on individual assistance payments.

An amendment in 1956 provided Federal financial participation in vendor medical payments separately from money payments up to one-half of the sum of \$6 multiplied by the number of adult recipients and \$3 multiplied by the number of child recipients per month. This proved an impetus to extend medical care provisions for needy people. Some States began to pay the cost of some medical services, and others expanded their existing medical care provisions. The use of an average in determining the amount of the Federal share also made it possible to meet larger medical care expenses in individual cases. Of special significance are the 1958 amendments which changed the basis of Federal financial participation in State expenditures for public assistance by relating the Federal share to an average expenditure per recipient including both money payments to recipients and direct payments to vendors of medical care. This is resulting in further increases in the availability of medical care.

Although demands for medical care are very great, in developing medical care provisions States have had to exercise caution so as to maintain a balance between expenditures for basic maintenance and for medical care. Among other considerations, they had to decide whether to provide funds for medical care for all recipients or only for those receiving assistance under specified programs, the items of medical care for which they would pay, whether the care would be limited to one or two items or cover the cost of a full range of medical services, whether all or only a portion of the medical needs of a recipient would be met, and whether payments would be made to recipients or directly to suppliers of medical care services. The decisions made were heavily influenced by the availability of funds.

In addition to technical assistance given by Bureau staff in developing a plan of administering provisions for medical care, some States, often with the help of State medical societies, made studies to determine the areas of greatest need. Others were assisted by advisory committees including professional medical people. Many State agencies consulted organized groups of suppliers of medical care services.

All jurisdictions but Arizona and Puerto Rico provided for some medical care under their public assistance programs in January 1958; in Puerto Rico medical care needs were met by the Health Department. The items of medical care provided include practitioners' services, hospitalization, drugs, nursing-convalescent home care, dental services, nursing services, clinic services, prosthetic appliances, ambulance (or other transportation), laboratory, and X-ray services. However, not all of these services were provided by all States.

Relatively comprehensive medical care was provided in only 10 States; in most of these, payments were for remedial rather than preventive services. The other jurisdictions paid for only a few medical services—some, for example, provided for hospitalization only for life-endangering conditions. In January 1958, nursing-convalescent home care was the item included most frequently for adult categories, and drugs, the item most frequently included in the aid to dependent children program. Nursing services provided by registered or practical nurses in the recipient's home was the item supplied least often.

In June 1959, 42 States provided for medical care services through the vendor payment method. Most of these agencies paid the suppliers of the care directly, but a few had arrangements with other agencies, such as the State public health department, Blue Cross, or Physicians' Service organization, to act as their agents. In June 1959, 16 States used a "pooled fund" to make vendor payments for medical care under one or more of the special types of public assistance.

In fiscal 1959, \$314 million was paid directly to the suppliers of

medical care services on behalf of recipients of the four State-Federal programs. The average vendor payment for all recipients (both those receiving money payments and those having only vendor payments made in their behalf), by program, in June 1959 was \$8.94 for the aged, \$5.34 for the blind, \$9.93 for the disabled, and \$1.66 per recipient for aid to dependent children.

Since most medical payments, except for costs of nursing home care in some States, are made to vendors, the following analysis of vendor payments for fiscal 1959 is indicative of the items of medical care being provided. Hospitalization costs represented by far the largest part of medical care expenditures; costs of nursing and convalescent home care, the second largest share; drugs and supplies, third; and practitioners' services, fourth. About 52 percent of the expenditures for vendor medical care payments in the five public assistance programs were incurred for the aged, 23 percent for general assistance cases, 14 percent for aid to dependent children families, 9 percent for the disabled, and 2 percent for the blind.

Although considerable progress has been made in recent years in providing medical care services for needy persons, both in quality and quantity, the need is still considerable. Further study is also needed on how best to utilize the money now available for medical care purposes. For example, nursing home care is a very costly kind of medical care service, and according to national and State studies, at least half the persons in nursing homes and homes for the aged are public assistance recipients. Yet studies conducted by the Public Health Service and by individual States indicate that close to 50 percent of the aged in nursing homes could be cared for more appropriately in their own or in foster homes. The many aged persons who are in nursing homes, however, will probably remain there until provision can be made for other living arrangements more suited to their needs.

To make more effective use of nursing home care, the Bureau has been working with the Public Health Service in planning and conducting regional meetings on nursing homes and homes for the aged for representatives of State welfare and health departments to discuss ways of achieving common objectives. Other Bureau activities have included participation in a joint Social Security Administration-Public Health Service Committee to plan for providing technical assistance to States in other areas of mutual concern, participation in the Medical Care Committee of the American Public Welfare Association in the development of a statement on "The Physician in the Public Welfare Agency," and working with its Subcommittee on Medical and Medical-Social Recording in developing a guide for public welfare agencies on the recording of medical and medical-social information.

A 2-day meeting of an ad hoc Medical Advisory Committee to the Bureau was also held in Washington, including representatives from 15 State public welfare agencies and staff from other constituent units of the Department, to develop a definition of "medical care" and "remedial care" in the administration of the medical assistance provisions of the public assistance programs. Consultation in the medical care area and other medical-social eligibility aspects of the public assistance programs was given during the year by Bureau staff both to State agencies and other groups concerned with provisions of medical care for assistance recipients.

Strengthening other social services.—Progress made in strengthening other social services is reflected in the provisions of the States' services plans developed in 1957, following the 1956 amendments to the Social Security Act reaffirming the importance of providing social services to help needy persons make fuller use of their own capacities for more independent living.

The problems most frequently identified for which States would provide services, in the order named, were those health, employment, housing, family relations, and children's problems which required short-time or tangible services. The problems least frequently identified for which services would be provided were those emotional problems of members of broken families, unmarried parents, or the ill which required more intensive casework service or other help over longer periods of time. Almost all emphasized the use of other community resources, with particular emphasis on cooperation with State vocational rehabilitation services and employment services. Many States recognized special responsibility for children and other persons in hazardous situations, and for community planning although only a few assigned staff specifically to the latter area.

Because of limitations in staff qualifications and time, many States attempted to define responsibility for services realistically, either by limiting the problems for which services would be provided, limiting the scope of services to those required in the determination of eligibility for money payments, or limiting services to those that could be provided during regular contacts for eligibility purposes. With better administrative planning, some States are gradually offering services to larger numbers of families and individuals.

In addition to the help given through the day-by-day activity of regular staff, a few States have also developed special services, such as homemaker services, volunteer service units, and foster home care for the aged. Some States are augmenting the skills of their casework staff with consultant services from medical social workers, home economists, and other specialists. Special projects in a few agencies are demonstrating the potential value of providing appropriate serv-

ices, and the benefits of cooperative effort among public and voluntary agencies and other community groups. There are also other evidences of increasingly effective utilization of community resources.

Broad guidelines have been established by the Bureau to help the States strengthen the service aspects of their programs. Emphasis has been on administrative planning to assure statewide provision of services, as well as development of policies and guides that are realistic in view of workloads, skill of staff, and the availability of supporting functions of consultation, supervision, and staff development. In addition, a plan was initiated for discussion with each State to determine specific areas in which further Bureau help was needed. The Bureau has also been working with other units in the Department and with national voluntary social agencies both in the utilization of available resources and in the development of additional needed services.

During the past year, for example, in developing services for the aging, Bureau staff worked with the Department's special committees in planning for the White House Conference on Aging, and participated in the National Leadership Training Institute held at the University of Michigan in preparation for the Conference; with the American Public Welfare Association's Committee on Aging in developing statements on social service needs of older people and on the community planning responsibilities of public welfare; and with the National Social Welfare Assembly's Committee on Aging in developing a project directed toward protective service needs of older persons, and in planning a seminar on social services for older people in the fall of 1959. There was also participation in a meeting of all national agencies concerned with aging called by the National Social Welfare Assembly.

Continuing effort to promote the use of homemaker service is evidenced in the Bureau's cooperative work with the National Committee on Homemaker Service, and in its participation in the second National Conference on Homemaker and Related Services held in February 1959 under the joint sponsorship of constituent units in the Department and many national voluntary social and health agencies. To deal more effectively with emotional problems of needy persons and strained relationships, the Bureau has initiated work with the Department's National Institute of Mental Health, and joint efforts have continued with the Family Service Association of America.

Further work has continued with the Children's Bureau toward utilizing the full potentials of both aid to dependent children and child welfare services programs in dealing constructively with the factors contributing to the dependency of children. A policy statement has been developed clarifying the functions and responsibilities

of each program in providing services to children in their own homes, the ways in which the two programs work cooperatively in providing these services, and the allocation of costs of services to children in families receiving public assistance. A working group from both bureaus is also developing a plan of cooperative activity to promote better understanding of the factors involved in illegitimacy and to identify State administrative planning essential to provide effective services in dealing with the needs and problems of unmarried mothers and their children. In addition, the two bureaus are planning to provide joint consultation to State agencies in areas of mutual concern.

Similarly, joint planning by the Bureau and the Office of Vocational Rehabilitation continues to strengthen the relationships between these two programs in the States and to make more extensive use of vocational rehabilitation resources. Bureau staff also participated in the departmental consideration of proposals relating to extension of programs for rehabilitative services and in developing proposals for extending such services through public welfare agencies, as well as in departmental consideration of program goals on community planning. Material was prepared on the considerations involved in working with individuals and families whose condition seriously affects their ability to manage their personal affairs, and in clarifying the role of public assistance in providing services to older people.

Study of many facets of the broad range of problems contributing to dependency, the pooling of the knowledge, skills, and resources of many related professions and disciplines, and emphasis on the broad rehabilitation potentials of public assistance programs are beginning to show results in many States. But low assistance standards, heavy workloads, lack of professional training of most staff, and the dearth of community resources limit opportunities to provide extensive services. States are therefore giving more attention to methods for improving staff competence and other administrative planning that will facilitate the provision of services.

Efforts to improve staff training and skill.—Since 1937, some States have made limited use of Federal funds for sharing costs incurred in granting educational leave to employees; others have not. In 1950, only about 23 percent of the 30,000 persons employed in social work positions in State and local public assistance agencies had some social work training, but less than 4 percent had completed graduate work. Although Congress, in 1956, authorized appropriation of Federal funds to better assist the States in meeting the costs of training, funds have not been appropriated to implement this amendment.

At first, anticipation of specific Federal funds for training resulted in changes in some State laws and increased State appropriations to

enable participation in the new Federal training provisions and evaluation of staff needs and long-range planning for staff development in many States. Efforts to improve the skill of some personnel were increased. By 1959, 39 State public assistance agencies had 402 people on educational leave (283 with and 119 without pay) at schools of social work.

With no funds available under the 1956 authorization for training, other alternatives of increasing staff competence and making more effective use of professionally trained staff are being explored. An example of the latter is the work initiated on the Educational Standards project to define appropriate job functions in relation to the educational background of public assistance staff. To further this effort, Bureau staff have been working with an advisory committee representing State public welfare agencies, schools of social work, the Department's Division of State Merit Systems, national social welfare organizations, and other Federal agencies to consider differential use of staff with varying educational background, and how best to test the use of workers with full graduate professional training and those with an undergraduate academic degree.

In addition to providing technical assistance requested by 15 State agencies and 5 schools of social work, the Bureau issued a report on "Staff Development as an Integral Part of Administration." Bureau staff participated in the consideration given to the training needs of staff in providing services for the aging by the Council on Social Work Education and the American Public Welfare Association's Committee on Social Work Education and Personnel, as well as other aspects of training by these groups and the National Association of Social Workers' Commission on Education. Bureau staff also participated in an interbureau training committee with the Children's Bureau in clarifying basic principles relating to staff development and other areas of common concern.

Efforts to improve administrative and fiscal methods.—Heavy workloads limit the opportunity to provide services in many instances. For example, in the old-age assistance program in 1958, 27 States had average caseloads per worker of more than 200 (in 19 of these States they ranged from 255 to over 500); and in aid to dependent children, 20 States had average caseloads of more than 100 (in 6, they ranged from 158 to 237). Continuing attention was therefore directed to working with States on needed improvements in organization, staffing patterns, and workload management to permit the best service possible within staff time available. A number of States also attempted to simplify their standards of assistance.

In addition to providing technical assistance requested by 11 States and making 6 management surveys of specific State situations, a con-

ference on workload standards and management was held in Washington, D.C., with State agencies in Region III; and a biregional conference (Regions VIII and IX) on administrative management of large urban agencies in San Francisco, with representatives from 5 States and 7 large urban areas, focused on workload distribution and staffing patterns, workload management, and analysis and simplification of procedures. A conference was held in Washington, D.C., with a group of State welfare finance officers on the use of mechanical processing equipment and other methods for efficient fiscal operations in public assistance administration. Bureau staff also participated in regional conferences of the American Public Welfare Association in sessions on administrative management methods and procedures for work improvement.

Guide materials are being developed for State agency use in (a) developing a State system of written instructions, (b) case recording, and (c) conducting organization and management surveys of State and local agencies; and a statement is being prepared on State supervision of local agencies. Two publications were issued in the "How They Do It" series: "Guides for County Boards," using material from Indiana and Iowa, and "Simplification of the Caseworker's Job," using material from Maine.

Other administrative developments.—To assure that Federal grants were spent by the States for the purposes for which they were appropriated, Bureau staff made administrative reviews of State and local operations in 25 States. Significant review findings were summarized for administrative use by Bureau and State agency staff. Also, technical assistance was provided to several States in making their own reviews of administration and in using their findings.

Growing interest in public assistance and concern especially with the social problems highlighted in the aid to dependent children program were evidenced by an increasing number of requests for information from individuals, organizations, writers, journalists, Members of Congress, and other agencies. An exhibit, "Your Whole Community Benefits," was prepared for use at national and State meetings. Materials interpreting aspects of the program were developed and made available to schools of social work, State and local agencies, and other interested individuals and groups.

Related Social Welfare Activities

As part of the Bureau's broad public welfare responsibilities, participation has continued (1) in international social welfare developments, and (2) in planning for emergency welfare services, services to repatriated American nationals and to refugees from other parts of the world.

International activities.—The Bureau Director continued to serve as chairman of the Interdepartmental Committee on International Social Welfare Policy. Bureau staff also participated in the preparation and review of technical materials for use at United Nations and other international meetings, such as the United Nations expert group on social welfare meeting in January 1959; in planning the National Social Welfare Assembly's international workshop in Washington, D.C., in October; and in preparing a fact sheet relating to voluntary and public agency activities in resettling refugees and immigrants. A Bureau staff member was one of the Social Security delegation (part of the East-West Exchange arranged by the Department of State) to the U.S.S.R. to study the Soviet system of social security. She also participated in conferences with the Soviet team on their return exchange visit.

Bureau staff in regional offices provided consultation and planned or arranged observation programs in cooperation with State and local public and voluntary welfare agencies for visitors from 34 countries. In the central office, staff specialists continued to provide consultation to foreign visitors and to international groups referred by various Government agencies.

Emergency welfare services.—An allotment of limited funds to the Department by the Office of Civil and Defense Mobilization under Reorganization Plan No. 1 of 1958 and the Independent Offices Appropriation enabled the Bureau to resume activities on previously delegated defense programs of emergency financial assistance and emergency clothing; and to participate with the OCDM in activities and resumption of negotiations relating to the Social Security Administration's assumption of basic responsibility for the full range of emergency welfare services.

Bureau staff worked with the OCDM in the development of an Annex on Emergency Welfare to the National Plan for Civil and Defense Mobilization; and with the OCDM and the SSA in drafting proposals for Department responsibility in emergency welfare services. Staff participated in Civil Defense Operation Alert 1959 (regional relocation phases) and in planning for the national relocation phase in August.

Services to refugees and immigrants.—A Bureau staff member served on the departmental Committee on Refugees and Immigrants which is planning for the implementation of the report of the departmental Task Force. The Bureau representative attended a meeting with an ad hoc committee of national voluntary agencies concerned with refugees held in New York City in February 1959, and assisted in the development of statements and position papers on legislation and program planning for services to refugees and immigrants.

Repatriation of American citizens.—The Bureau has continued to assist the Department of State in arranging for the reception and care of repatriated American nationals who need special help upon arrival in this country. During fiscal 1959, services were requested for 215 such persons. Their most pressing needs were for funds for transportation beyond the port of entry and provisions for hospitalizing mentally ill repatriates who have no State residence.

Culminating a long period of program development and interdepartmental negotiation, draft legislation was submitted to the Congress to provide a statutory base and appropriation authority to enable the Federal Government to assume its proper share of the expense of these services. Similarly, interdepartmental negotiations have facilitated joint work between the Bureau's regional staff, Army Port Commanders, and selected State and local public welfare authorities in implementing program and maintaining standby readiness.

Children's Bureau

Some Facts and Figures About Parents and Children

Since 1954 the annual number of live births has exceeded 4 million. The number decreased very slightly in 1958 and the provisional crude birth rate also dropped to 24.5 per 1,000 population. Nevertheless, both numbers and rates are well above the level of the 1930-40 decade.

The estimated number of children under 18 in the civilian population of the United States in 1958, excluding Alaska and Hawaii, was over 61 million, or 35.7 percent of the total population.

Provisional statistics indicate that the infant mortality rate increased again slightly in 1958. Thirty-one States experienced an increase as compared with the previous year.

For children age 1 year to 20, accidents are the leading cause of death at all ages; for children age 5 and over, cancer is second among leading causes.

Births out of wedlock continue to increase. The reported number for 1957 was 201,700; the ratio per 1,000 live births increased from 46.5 to 47.4 and the rate per 1,000 unmarried women age 15-44 years from 20.2 to 20.9. Forty percent of the unmarried mothers in 1957 were under 20 years of age.

In March 1958, nearly 7.5 million mothers with children under 18, about 29 percent of such mothers, were in the labor force. Nearly 3 million had children under 6, a little over 20 percent of such mothers.

Most children under 18, at least 87 percent of them, have a home with both parents. But in 1958 of the 25.8 million families with children under 18, about 11 percent or 2.8 million were broken homes. Most of these, 2.4 million, were homes in which only the mother was present.

Juvenile delinquency court cases more than doubled between 1948 and 1957 while the child population in the vulnerable age group—10 through 17—increased by only 28 percent. In 1957 there were more than 600,000 cases of delinquency involving about 520,000 children.

Major Bureau Trends

In fulfilling its special charge from Congress to be the focal point of Federal concern for child life and the well-being of the Nation's children, the Children's Bureau marked 1959 as a year of peak activity in many areas.

In the cooperative Federal-State programs for maternal and child health, crippled children and child welfare, for which the Bureau administered grants to the States totaling \$43,500,000, the burgeoning child population placed capacity demand upon all forms of services. Through its publications and reports the Bureau provided a maximum volume of information about child life and services to children. Congress voted the Bureau a supplemental appropriation of \$1,500,000 in crippled children's funds for services for children with congenital heart disease.

The year 1959 was also marked by events which forecast significant developments in the future. Planning for the 1960 White House Conference on Children and Youth occupied a major portion of Bureau effort and staff time. Under congressional mandate, the Bureau was actively participating in the preparation of two wide-reaching reports due in Congress by January 1, 1960—that of the Advisory Council on Child Welfare Services and the Joint Children's Bureau-National Institute of Mental Health Study of Juvenile Delinquency. The Bureau participated in the presentation of testimony on a number of important legislative proposals, such as those relating to the protection of children from abroad who are adopted by American citizens, a program for international health research, and juvenile delinquency. At the request of Congress, the Bureau was exploring means to further aid the immunization of children against polio.

As statistics showed a continuing rise in illegitimate births, the Bureau undertook, with the Bureau of Public Assistance, to draft a plan which would promote better understanding of factors involved in the problem and to improve public welfare services for unmarried parents. At the same time, it gave renewed support to strengthening

two relatively undeveloped social instruments—homemaker service and day care.

The National Conference on Homemaker and Related Services climaxed a 2-year joint effort of public and voluntary agencies to promote this program. With the Women's Bureau, Department of Labor, the Children's Bureau made a joint survey of the resources of national organizations with day-care services.

1960 White House Conference on Children and Youth

In May 1958 the President announced March 1960 as the date for the Sixth White House Conference on Children and Youth and asked the Secretary of the Department of Health, Education, and Welfare to invite State and Territorial Governors to appoint special committees to begin a stocktaking on problems of the young. Such a conference has been held every 10 years since President Theodore Roosevelt convened the first in 1909.

The President asked the Children's Bureau to serve again as the focal point in the Federal Government for the conference planning. The Council of National Organizations, the National Council of State Committees on Children and Youth, and the Interdepartmental Committee on Children and Youth are among the organizations cooperating with the White House Conference staff.

Hundreds of thousands of citizens, both adults and young people, have been enlisted to work on State and local committees for the 1960 White House Conference. They are making it clear that they see the Conference also as a forum for an exchange of critical views on American values and on the American way of bringing up children.

The material coming to the White House Conference staff from the States reflects a general concern with the effects of rapid change on children and youth—change both in the past decade and in the years to come. Reports of State Committees reveal that to help children and youth “realize their full potential for a creative life in freedom and dignity” responsible adults feel the need to define and maintain the moral and ethical values of our society as against the material ones; to raise our educational standards and to broaden and improve educational opportunities for all kinds of children and youth, whether gifted, handicapped or average. They are particularly concerned with the need for strengthening family life.

Increasing concern is being given to groups of children with special problems which seem to have increased and to have been aggravated in the past decade—youth in conflict with society; children and youth who are physically, mentally, emotionally, or socially handicapped; children who are neglected or deserted; children who drop out of

school for lack of adequate training or adequate guidance. There is concern also about youngsters who marry too young; and about youngsters who seem to have little sense of responsibility, few values or goals, and few interests other than themselves. State Committees see the White House Conference as a great opportunity for focusing public attention on these needs and for building mechanisms to meet them.

In an address to the National Conference on Social Welfare, May 25, 1959, Mr. Ephraim Gomberg, Director, White House Conference, said:

. . . We refer to the White House Conference on Children and Youth as a *process* rather than a 6-day series of meetings—a process in which citizen *preparation*, citizen *financing*, citizen *participation* and citizen *followup* underpin every bit of the comprehensive planning now underway.

The 6 days of meetings in Washington are not the Golden Anniversary Conference. Rather they are the focal point of interest in 1960—the view from the mountain top after 12 months of preparation and climbing. Those 6 days are intended to provide a memorable view, a perspective, a forum for discussion, a classroom of learning. But they will be followed by 10 years of preparing for and of scaling other mountains of achievement in communities and States. . . .

Federal Interdepartmental Committee on Children and Youth

The Interdepartmental Committee on Children and Youth, established in 1948 to provide an opportunity for the exchange of information among Federal agencies with program interests in children, has held regular monthly meetings during the past year. Among the subjects presented for discussion were: the cooperative extension program, marriage and divorce trends in the United States, the program for aid-to-dependent children, and research progress in mental subnormality.

The Interdepartmental Committee was requested by the President's National Committee for the 1960 White House Conference on Children and Youth to serve as the main channel for Federal agency participation in the forthcoming White House Conference. This assignment involves providing Federal agency participation in policy and program determination for the Conference, in keeping Federal agencies informed of developments in Conference planning, in making available to the White House Conference the knowledge, resources and experience of Government agencies and in post-Conference followup activities.

One of the major activities of the Interdepartmental Committee has been the development of a chart book on children and youth to be published for use at the 1960 White House Conference.

The National Council of State Committees for Children and Youth, with which the Interdepartmental Committee has a close relationship, held a workshop in Washington, D.C., January 15–16, 1959, on State

preparation for the 1960 White House Conference. One hundred four representatives of 41 State Committees participated along with members of the Children's Bureau, the White House Conference staff, and representatives of many of the ICCY agencies.

Programs of the Bureau

RESEARCH IN CHILD LIFE

Research activities of the Children's Bureau take a variety of forms. One study concerns situations, conditions, or processes to furnish information—and sometimes ammunition—for promoting the welfare of children. An example is a study, begun in 1959 in cooperation with National Office of Vital Statistics, on the incidence of cystic fibrosis. The first phase provided national estimates of hospitalized cases during 1952-53. The second phase is a pilot study to develop methodology for a national survey (Phase 3) of cases known to physicians in their private or clinic practice.

Other special studies completed or in process in 1959 were the followup of 500 nonagency adoptions; the analysis of staff turnover in child welfare and family agencies; a study, made in cooperation with the Bureau of the Census, of child care arrangements by working mothers; the application of "performance budgeting" reported in *Cost Analysis in Child Welfare Services*. In this same category are plans now under way for community studies to fill a yawning information gap about the beliefs and behavior of American teenagers who do *not* present acute problems—as a basis for more effective approaches to juvenile delinquency and other youth difficulties.

Another type of activity draws on research done by others. A preliminary roundup of research bearing on the effects of having mothers work outside the home was issued in 1959 for staff use only, pending final editing. An analysis of efforts to evaluate psychosocial change in individuals was presented in *Some Guide Lines for Evaluative Research*. More strictly on the reporting end, Bulletins 8 and 9 of *Research Relating to Children* carry on the Bureau's running inventory of current nonmedical research.

The Bureau also gathers or compiles statistics for use by a wide public, inside and outside of Government. Seven numbers of the ongoing *Statistical Series* (Nos. 48-54) were completed during the fiscal year, covering various aspects of juvenile delinquency and child health and welfare. *Trends in Programs Administered by the Children's Bureau* was revised and an edition issued for the 1960 White House Conference. Major staff assistance was given to the chart book for the Conference, a compilation of statistical data about children, prepared by the Interdepartmental Committee on Children and Youth.

Staff members also worked with States and national organizations in improving data-gathering methods and reporting forms relating to such concerns as maternal and child health, mental retardation, police reporting of juvenile delinquency, institutional child populations, etc., and gave research consultation or participated in working groups for State and local departments and for national organizations concerned with the welfare of children.

Impetus to research developments was given by staff members through more than a score of articles, papers and reports published in professional journals widely circulated among the many practitioners, teachers, and scholars who look to the Bureau for information about what is done, learned, and needed with regard to the well-being of children.

MATERNAL AND CHILD HEALTH SERVICES

All States, the District of Columbia, Puerto Rico, and the Virgin Islands receive Federal funds to extend and improve services for promoting health of mothers and children.

For the fiscal year 1959, the appropriation for maternal and child health remained the same, that is, \$16,500,000, with \$1 million earmarked for services to mentally retarded children.

Ongoing programs of the State maternal and child health agencies continued to make major contributions to the health of the Nation. State maternal and child health reports showed that about 257,000 mothers received services at maternity medical clinics in 1958. In addition, public health nurses served 554,000 mothers before or after delivery.

About 601,000 infants and 826,000 other children received health supervision through well-child clinics. In addition, health department programs provided nursing service for over 3,018,000 infants and other children.

Over 2,700,000 children were vaccinated for smallpox, and over 3,100,000 were immunized for diphtheria by State and local health departments through grants provided by the maternal and child health programs. Polio immunization through these programs reached 5,100,000 children.

Activities and services of maternal and child health programs on behalf of mentally retarded children and their families continued to expand in 1959. Of 44 State health departments offering special services to the retarded, 36 reported serving 6,704 children and their families during the past calendar year. There was a steady movement toward earlier casefinding and identification; 30.3 percent of the new cases seen during the year were under 4 years of age and 74.6 percent were under 9 years of age. Applications continued to exceed the capacity of the centers to accept children for diagnosis, evaluation, and

treatment, but new methods of reducing waiting lists are resulting in services to a larger number of families. More selectivity and flexibility in the use of diagnostic approaches, more efficient use of local resources, greater stress on training local generalized personnel, and assignment of preliminary screening responsibility to local services are some of the techniques being used.

During the year three biregional conferences were held. These involved the administrative and technical clinical staff in six regions and afforded an opportunity for exchanging information and sharing ideas and experience.

A highlight of the year was a meeting of the Children's Bureau's Technical Committee on Clinical Programs for Mentally Retarded Children called primarily to discuss an action program to prevent the mental retardation associated with phenylketonuria. As a result guides for screening and treatment of affected children are being developed. The recommendations made by this Committee were subsequently endorsed unanimously by the American Association for Mental Deficiency.

Pilot studies to identify affected families are already in progress in several States, among them Michigan, Oklahoma, and California.

After 22 years of decline, infant mortality rates rose from a record low of 26.0 in 1956 to provisional rates of 26.4 in 1957, and 26.9 in 1958. Concern over this increase in infant mortality has resulted in efforts to pinpoint specific causes, or at least to determine whether certain areas or groups in the population are chiefly responsible for the rise. As a result of several studies which show an association between lack of prenatal care and increased neonatal mortality, a number of States and cities have established new clinic facilities for maternity patients in areas inadequately covered.

Partly as a result of higher neonatal mortality and partly because of interest in controlling hospital-acquired staphylococcal infections, consultation by maternal and child health personnel to hospitals is increasing. Some States have been able to employ new staff for this service. A number of States report that the number of requests for hospital consultation exceeds their ability to meet these requests. A number of State health departments have published new hospital manuals emphasizing the care of newborn infants and the control of infections in nurseries. A number of institutes on this subject were held in the States during the past year.

Interest in special problems of the adolescent has taken concrete form in the development of services for this age group. A number of new clinics for adolescents were started during the year. Although all these clinics are essentially medical clinics, a very broad service to adolescents is being offered, including help with social, emotional and intellectual problems.

Since a high percentage of accidents involve children, a number of State maternal and child health divisions now employ personnel specifically assigned to accident prevention and poison control activities. During the year a number of studies of childhood accidents were made by these States to find clues for prevention.

As in former years a great deal of attention has been given to training professional persons who serve mothers and children. Two important conferences were held at schools of public health. An Institute on Perinatal Casualties was held at the University of Minnesota in cooperation with the University of Michigan and the maternal and child health and crippled children's agencies of the two States. A regional conference on child growth and development was held at the Johns Hopkins University School of Public Health in cooperation with the Maryland State Department of Health.

Institutes for physicians and nurses on the care of premature infants were given at the New York-Cornell Medical Center. The faculty from this Center also led institutes in neighboring States. Other courses in the care of prematures were given in various parts of Florida by the staff of the premature center in Miami.

CRIPPLED CHILDREN'S SERVICES

All the States (excepting Arizona), the District of Columbia, Puerto Rico, the Virgin Islands, and Guam are participating in the crippled children's program. Although the State agency auspices vary, the objective is uniform, namely: to locate children who require care and to provide restoration through diagnosis, medical and surgical treatment, and alleviation of unfavorable social and psychological influences which adversely affect the degree and duration of the disability. The appropriation for crippled children's services is \$15 million, \$5 million less than the amount authorized.

A new peak was reached in 1958 in the number of handicapped children served under federally aided programs, preliminary figures from State reports indicate. Of the 325,000 children cared for during the year, 255,000 were examined in clinics; about 71,000 received physicians' services through home or office visits. About 53,000 children were hospitalized. Convalescent home care was given to the smallest group, around 3,800.

Shortage of funds continued to plague the crippled children's program. Not only were medical care costs higher but caseloads were heavier due to an increasing child population, to relatively larger numbers of children in low-income families, to extension of services to new categories of children, to improved casefinding, and to advances in therapy making a larger number of children amenable to treatment. In a few States a larger number of families were unable to pay for private care because of unemployment.

In many States crippled children's programs have had to be curtailed because of insufficient funds at the very time demand for services is increasing, particularly in areas where programs have been improved, where services provided have not been available previously, and where new developments in medical diagnosis and treatment are being applied. These include such diagnostic categories as congenital heart disease, speech and hearing defects, cleft lip and cleft palate, and neurological impairments.

Among the States where services have been curtailed, except for the most urgent or severe problems, are Colorado, Idaho, Montana, Wyoming, Kentucky, and North Carolina. Three States established waiting lists for surgery beginning in the third quarter; Missouri, Puerto Rico, and West Virginia have long waiting lists. Should this trend continue, the number of children whose severe and permanent disability could have been prevented or alleviated will undoubtedly increase. Further, extension of services to children with malignancies, cystic fibrosis, nephrosis and other metabolic diseases will not be possible.

The pressing need for crippled children's funds was alleviated somewhat this spring when Congress earmarked \$1½ million for fiscal years 1959 and 1960 for care of children with congenital heart disease.

Beginning in 1939, when the increased crippled children's appropriation was made in part so that rheumatic fever programs could be developed, Congress has shown a preference for appropriations given for specific purposes. This was also demonstrated in 1957 when \$1 million of maternal and child health funds were earmarked for programs for mental retardation.

States are increasingly aware of the needs of multiple handicapped children such as the deaf-blind. During the year the Children's Rehabilitation Unit of the University of Kansas Medical Center evaluated nine such children and through their efforts the State legislature passed a bill providing out-of-State education for severely handicapped children such as the deaf-blind for whom special educational opportunities are not available in Kansas.

During the year a conference was held at the Child Amputee Center, Grand Rapids, Mich., sponsored by the National Research Council's Committee on Children's Prosthetics Problems, and the Children's Bureau, to which were invited the directors of 12 major child amputee clinics. Agreement was reached on areas of clinical program studies to be carried out cooperatively by all 12 clinics. This includes testing a new artificial leg, studying problems of fitting artificial arms, and studies of the optimal age for fitting babies with artificial arms.

The Harvard School of Public Health, in cooperation with the

Children's Cancer Research Foundation and the Massachusetts Department of Public Health, sponsored an institute on leukemia and other malignant neoplasms in childhood for maternal and child health and crippled children's directors. The importance of early diagnosis was stressed and the newer medical and surgical treatments which have improved prognosis for cancer in children were discussed.

The availability of services in the congenital heart programs has led to the discovery of many children previously unrecognized. In 1950, 2,207 children received physicians' services for congenital heart disease under State crippled children's programs; in 1958, 12,164 (preliminary), nearly 6 times as many. The rapid and brilliant scientific advances which have occurred in the diagnosis and treatment of congenital heart disease have created widespread interest. The past 2 or 3 years have seen the development of professional teams and facilities for care of children with congenital heart disease in medical centers and hospitals in many States. This development of State centers has resulted in fewer children leaving their own State for care in regional centers.

Increasing interest with resulting development of programs for children with cystic fibrosis has been taking place, especially in the northeastern States. The caseload for children with this condition has been increasing. Many training institutes have included the subject of cystic fibrosis.

CHILD WELFARE SERVICES

The year 1959 stands out as a momentous one for the child welfare services program. The potentially far-reaching and challenging ramifications of the 1958 amendments to the child welfare provisions of Title V, part 3, of the Social Security Act for strengthening services for all children in this country is increasingly evident even in the relatively short period of time since their Presidential approval on August 28, 1958. With child welfare funds now available to urban as well as to rural areas, States have an opportunity to participate in improving community living for children and families in a dimension not heretofore possible.

In addition, the amendments:

1. Broadened the provision with respect to return of runaway children to their own communities to permit use of funds for children up to 18 years of age and to maintain the child pending his return for a period not exceeding 15 days.
2. Increased the authorization of Federal child welfare services funds from \$12 million to \$17 million.
3. Authorized reallotment of these funds. In accordance with this provision, reallotment was made to 15 States (February 1, 1959) of funds released by 4 States. That States have made

effective use of these additional funds is evidenced by the fact that the amount of Federal funds on hand in the Federal Treasury on June 30, 1959, was only \$166,701.34. This represents 1.4 percent remaining in the Treasury in 1959 as contrasted with 4.6 percent in 1958.

4. Added a new requirement for matching Federal child welfare services funds with State funds, beginning July 1, 1959.
5. Extended the program to Guam, as of the same date. The Bureau's regional child welfare representative was in Guam before the end of the 1959 fiscal year to confer on the development of the basic plan and 1960 annual budget.

Another 1958 amendment to the Social Security Act (Title IX) established an Advisory Council on Child Welfare Services to report to the Secretary and the Congress by January 1, 1960. At its first meeting, May 4 and 5, the Council concerned itself chiefly with determining the scope of future deliberations and procedures for carrying out the congressional directive. Plans were made for a maximum of three future meetings before the end of 1959. A working paper prepared by the Bureau was requested by the Council for consideration at its next meeting. The Bureau has requested from States and national voluntary agencies information on developments and needs in child welfare programs as well as suggestions for future changes in Federal legislation.

As the fiscal year ended, plans were underway for an evaluation of the effect of the 1958 amendments. They have opened a new era in the grant program for child welfare services. Their effect in strengthening State and local child welfare programs along with recommendations anticipated from the Advisory Council on Child Welfare Services, will lay a foundation for the future of public child welfare services throughout the Nation.

A meeting with State Welfare Administrators and Child Welfare Directors, in October 1958, afforded opportunity for a discussion of draft materials on new procedures to carry out the above provisions. A report of the Conference is included in *The Changing Scene in Child Welfare*—Child Welfare Reports No. 9. Subsequently, these revised procedures were issued in official form, and prior to the fiscal year's end were incorporated along with procedures for implementing the requirement for "matching" in the *Handbook for Child Welfare Services*. Revised regulations were also in draft.

Uniformly, reports from the regional offices and from the States themselves have indicated a positive reaction to the new legislative base. A great deal of thought and care has gone into considering the most effective utilization of combined State and Federal funds to strengthen child welfare programs; State agencies have received new impetus for program expansion and development.

Demonstrable progress was made in 1959 in advancing knowledge of children's needs through joint planning between levels of government and between citizens and voluntary and public agencies in determining optimum ways of providing needed services.

Particular stress was laid on strengthening family life and services to children in their own homes. A joint committee of the Children's Bureau and Bureau of Public Assistance prepared a statement on relationships between the two programs in providing services to children in the families who also receive public assistance. A plan for allocating costs of such services between these two grant-in-aid programs was also developed. Consultation to State and local welfare agencies and citizen groups by the Bureau's Specialist on Services to Children in Their Own Homes has emphasized coordination in planning and providing services.

Results of the special survey conducted for the Bureau by the Bureau of the Census (May 1958) on arrangements for care of children of working mothers revealed that some 400,000 children under age 12 must care for themselves while their mothers work. Another 24,000 children under age 3 and 67,000 between ages 3 and 5 were reported receiving some type of group care. The effects of group care upon very young children, or of substandard or "no care" arrangements for any of these youngsters, is a matter of grave concern to the Bureau. In quick followup, a questionnaire on day care programs and facilities was developed jointly with the Women's Bureau in the Department of Labor and sent to some 284 national welfare, health, service, and women's organizations. Preliminary analysis of the returns testified to the widespread interest in this area of service. Bureau planning with the Women's Bureau for a Day Care Conference was underway at the year's end.

Another highlight of the year was the staging in Chicago in February 1959 of the most widely representative conference on homemaker service ever held in this country. The careful preliminary planning involved study groups in New York, Chicago, San Francisco, Cleveland, Raleigh, Denver, and Trenton; 26 national voluntary agencies; and 8 units of Health, Education, and Welfare. Participants received 12 descriptive statements of agency programs; reports of the pre-conference study groups; a nationwide study of services; and a popularly written pamphlet, CB Folder No. 46—*Homemaker Service*. Recommendations of significance to State programs were—

1. For a multidiscipline study and evaluation of the existing variations in homemaker service programs.
2. That the Department of Health, Education, and Welfare "encourage and assist States in developing homemaker service by continuing and expanding the consultation service it presently provides."

Significant advances have been made nationally this year in the preparation of legislative guides and model laws pertaining to child life. It is expected that these will have a substantial and positive effect upon future State legislative action. Four legislative workshops have been conducted by the Bureau's Specialist on Child Welfare Legislation on draft materials on parental rights and principles of adoption legislation. Participants included the Office of the General Counsel and Bureau personnel in the central office and seven regional offices. Publication of the Standard Family Court Act in 1959 provided another major development in child welfare services. Proposed as a model for State legislation, it provides for unified jurisdiction within family courts for issues arising from family conflicts such as divorce, adoption, support, paternity, delinquency, neglect, and allied problems.

Reorganization of the Bureau's Division of Social Services afforded opportunity for staff to work this past year not only with national organizations in the field of child welfare, but in many related fields as well. Consultations were given to a number of local voluntary and public agencies and institutions. Through the media of planning councils staff members have worked with citizens and lay groups; through appointment on national or regional or local professional committees they have helped to improve practices and standards for care. A conference of Lutheran, Methodist, and Episcopal national officers with five Southeastern State welfare department licensing consultants is one result of the new emphasis.

The scope of the Bureau's joint activities in 1959 with a variety of agencies and governmental units reflects the broad ramifications of its child welfare program. Cooperative efforts have continued with the American Association on Mental Deficiency, training schools, schools of social work, and the Council on Social Work Education in the field of social services for mentally retarded children.

The Division has worked jointly with the Child Welfare League of America, Family Service Association of America, National Travelers Aid Society, National Urban League, United Community Funds and Councils of America, the Salvation Army, the American Social Health Assn., and Florence Crittenton Home Association on problems related to the unmarried mother. Although the proportion of teenage unmarried mothers to the total number of unmarried mothers has remained fairly constant, there was an increase of 5.2 percent between 1956 and 1957 in births to adolescent unmarried mothers. Community concern over this trend has taken many forms. The Bureau noted a substantial increase in the number of letters it received requesting information about the problem, as well as suggested resources or preventive measures. Study committees have been appointed in a number

of States and urban centers to survey the magnitude of the problem, assess services and resources and make recommendations for next steps. Division staff is working with Bureau of Public Assistance staff on a cooperative approach to identifying the factors involved in illegitimacy and the planning essential to provide effective services to unmarried mothers and their children.

An East Coast Migratory Farm Labor Conference had participation from the fields of health, welfare, labor and industry, education, employment security, industrial relations, law enforcement, agriculture and markets, social security, vocational rehabilitation and church welfare services. The Mid-American Conference on Migratory Labor involved participants from 19 States. Joint sponsors were the Council of State Governments and the President's Committee on Migratory Labor. Division of Social Services staff participated in preliminary planning and acted as workshop leaders in some of the sessions on the needs of children of migrant workers.

Among the staff training developments during the year, the Bureau and the Child Welfare League of America completed a statement on the knowledge and skills essential for practice in the field of child welfare for use in the curriculum study directed by the Council on Social Work Education. A record \$1,199,381.80 was budgeted by States as of June 30, 1959, for educational leave under their child welfare services program, holding promise for some future easing of trained staff shortages. Also, the Bureau took a first step in exploring the problem of how States can make effective differential use of available staff. A selected group of representatives from public child welfare and voluntary agencies was invited to Washington by the Bureau for a 2-day session on such differential use of staff, particularly case aides, for those aspects of the child welfare job which can be isolated as not requiring professional knowledge and skills. This, it is hoped, will be the beginning of broader-scale controlled experimentation. Division staff participated with the Bureau of Public Assistance in an inter-Bureau Committee in clarifying basic principles relating to staff development.

JUVENILE DELINQUENCY SERVICE

Interest in the problem of juvenile delinquency continued high throughout the country. More than 20 bills relating to delinquency were introduced in the past session of Congress. Several volumes of testimony were taken by two congressional subcommittees which heard witnesses testify on these bills. At the end of fiscal 1959, the subcommittees had reported out bills which were awaiting action of the full committees.

This widespread interest generated requests for the services of the Bureau's juvenile delinquency specialists to a point far beyond

their present capacity. The 10 staff specialists on delinquency responded to more than 800 requests for services. Three hundred and twenty-two of these requests from 32 States, the District of Columbia, Virgin Islands, and Puerto Rico were served by field consultations. Consultations were provided to 147 persons in the Washington office and to 366 through correspondence. In addition, approximately 60 foreign visitors from 24 countries received program information and technical assistance through office interviews.

Among official planning and coordinating agencies, there is a growing conviction that more must be learned about how to prevent juvenile delinquency, that new preventive techniques and programs should be tried and tested, and research intensified to measure the effectiveness of those already in use.

In the fall of 1958 with Children's Bureau staff attending, administrative personnel representing the youth commissions of 14 States came together to discuss their common concern—how to increase the prevention of juvenile delinquency. This was the first meeting for this purpose of personnel in State governments with leadership responsibilities to combat juvenile delinquency. A decision was made to meet again early in fall 1959 and to act on a proposal for a permanent organization.

In response to the expressed interest of municipal youth commissions, the Children's Bureau convened a meeting of their representatives in the fall of 1958, with nine directors from seven States. These commissions are seeking to develop a teamwork approach among concerned public and private agencies to reduce delinquency. They are especially interested in developing ways and means of converting citizen concern into positive action. The Children's Bureau staff also helped in planning a conference on "The Role of Pediatric Services in the Prevention of Juvenile Delinquency," sponsored by the American Academy of Pediatrics. The current interest of pediatricians in delinquency prevention is significant since they are as close to children and families as any other professional group.

Interest in training continued to gain. Staff members participated in numerous workshops and institutes. Considerable material was secured and is being adapted for training purposes.

In 1959, a number of police administrators were emphasizing the total departmental role in relation to children and youth rather than the responsibility of a small corps of juvenile specialists. Greater stress and responsibility were being placed on the patrol force for investigating and disposing of children's cases. A trend continued for police departments to withdraw from recreation and other activities normally the responsibility of other agencies.

The development of the Standard Family Court Act and Standard Juvenile Court Act (a cooperative venture of the National Probation

and Parole Association, the National Council of Juvenile Court Judges and the Children's Bureau) has brought about a more critical and realistic look at the principles and procedures involved in juvenile and family court operation. The substantial agreement among the three agencies on the principles involved should prove to be a milestone in the development of juvenile and family courts.

State agencies showed increased awareness of the necessity of providing juvenile court and probation and detention consultations. A number of States have added such consultants to their staffs. For the first time, a special workshop devoted to the subject of State consultant services to juvenile courts was held at the National Institute on Crime and Delinquency.

Considerable interest continued in forestry camps as a means of providing a constructive and unique institutional experience for delinquent boys. The interest is being manifested in the actual construction and development of camps as well as in discussions. There are wide variations in these programs. Experimentation is essential and that course is being pursued in some States.

Many States continue to face problems of overcrowding in institutions. This has led many to build additional cottages on their grounds to accommodate more children. In some States new institutions have been started and, as indicated above, a considerable number of camps have been initiated. Also, to meet this problem, some schools have had to reduce the length of stay.

Three major publications were completed: *Administration and Staff Training in Institutions for Juvenile Delinquents* (CB Pub. 377), was developed in cooperation with the National Association of Training Schools and Juvenile Agencies, National Conference of Superintendents of Training Schools and Reformatories, National Conference of Superintendents of Girls' Training Schools and the Graduate School of Social Work of Rutgers University; the *Standard Family Court Act* and the *Standard Juvenile Court Act* were the result of a joint project of the National Probation and Parole Association, the National Council of Juvenile Court Judges, and the Children's Bureau (printed by the National Probation and Parole Association).

Cooperative work was also carried on with the Council of Social Work Education, the American Public Welfare Association, and the Child Welfare League of America.

INTERNATIONAL COOPERATION

At the Executive Board meeting of UNICEF in the spring of 1958, the Chief of the Children's Bureau, as Chairman of the U.S. Delegation, made a proposal for a study of how UNICEF aid might be expanded into the field of social services for children, beginning with institutions and day care centers. During the subsequent year such a

study was carried out by the Bureau of Social Affairs. Enthusiastically received by the Executive Board in the spring of 1959, the study forms the background for a new program to be undertaken gradually. With the aid of a special consultant from the United Kingdom, the Bureau of Social Affairs and UNICEF will work with countries in developing new programs for children requiring care outside their own homes.

Staff members of the Bureau reviewed material and worked on the development of position papers for the Session of the United Nations Social Commission in New York in April and for the Session of the Economic and Social Council of the United Nations in Geneva in June. Material in the field of maternal and child health was provided for the use of the U.S. Delegate at meetings of the South Pacific Commission, and for the use of the U.S. Delegates to the World Health Organization Assembly.

The Bureau's heavy foreign correspondence continued, with a shift in geographic emphasis. The past year has brought a sharply increased number of requests for information and materials from African countries south of the Sahara. This reflects the increasing interest and activity of the United Nations and its specialized agencies and of the U.S. International Cooperation Administration in that part of the world.

Under a cooperative program with the International Cooperation Administration of the State Department, the Bureau's international staff recruits Americans for maternal and child health and child welfare positions abroad, provides technical materials and information as requested, and plans and arranges training programs for persons from other countries. In 1959 the trend in requests for recruiting was toward the social services, in the general field of child welfare, and in medical social services in national health programs. In training activities the trend toward training in the specialties of pediatrics and obstetrics for doctors and nurses continued, with a smaller number in the general area of maternal and child health.

Nine maternal and child health and child welfare specialists recruited and backstopped by the Bureau worked as consultants and teachers in eight countries. Two nurses, one obstetric and one pediatric, were in Guatemala, one pediatric nurse in Brazil, one nurse-midwife in Bolivia, and one pediatric nurse in India. A maternal and child health physician was in Paraguay and another in Iraq. In the first 6 months of 1959 a medical social worker arrived in Peru and a child welfare worker went to El Salvador.

During the year, programs of study and observation in this country were planned and arranged for 84 long-term trainees, an increase of 10 percent over 1958. The total of 84 included 39 physicians; 17

nurses; 1 administrator of a program for handicapped children; 3 medical social workers; 1 health educator and 23 specialists in various aspects of child and youth welfare. They came from 35 countries under auspices of the International Cooperation Administration, the United Nations, the World Health Organization, the International Exchange Service of the State Department, the Department of Defense, and a few from such organizations as the Carnegie Foundation and the American Association of University Women.

As in several years previous, more and more overseas physicians came here for training in the clinical specialties of pediatrics and obstetrics and many will return to teaching positions in medical schools in their respective homelands. Seven physicians on the faculty of medicine in Indonesia came for further training in pediatrics and obstetrics, part of an overall plan to upgrade medical education in that country. Thailand has continued its pattern of requesting 2 or more years for training physicians who will teach the clinical specialties, and the International Cooperation Administration has supported this pattern.

Twenty-three persons came to study child and youth welfare. Of these, 4 studied group work with children and youth; 3, juvenile delinquency; 1, child guidance; and 15, the general area of child welfare. Three persons studied in the field of medical social work.

In addition to the long-term trainees and observers, interviews and short observation visits were arranged for 152 short-term visitors from 55 countries. Among the 152 were top-ranking Government officials; members of Parliament; judges; teachers in universities, high schools, and grade schools; health educators; nutritionists; labor leaders; directors of insurance programs; doctors; nurses; social workers, etc., all of whom had major interest in some general field, but a minor interest in children.

INFORMATION FOR PARENTS AND THOSE WORKING WITH CHILDREN

In 1959, 37 new and revised publications were issued, and 9 more were undergoing, or ready for, printing, as compared to 32 issued and 13 ready to go at the end of fiscal year 1958. The number of printed pages produced in 1959, however, totaled 2,180, as compared to 1,864 in 1958—the highest total of published pages since 1927.

Besides important additions to its list of technical publications, the Bureau issued three new publications for parents which proved instantly popular—*Your Gifted Child*, *The Mentally Retarded Child at Home*, and *Accidents and Children*.

A publication highlight was the issuance of the 40,000,000th copy of *Infant Care* and its presentation to “typical” American parents by President Eisenhower at the White House.

A promotional effort for *Children* resulted in the addition of 4,000 new paid subscribers to that interdisciplinary journal, giving it the

highest paid circulation of any Department of Health, Education, and Welfare periodical.

Federal Credit Unions

Several noteworthy events during and immediately after the close of the fiscal year helped to strengthen the Federal credit union program and provided additional opportunities for service to the members.

Midway through the fiscal year, total assets of federally chartered credit unions passed the \$2 billion level for the first time and active membership exceeded 5 million.

June 26 marked the 25th anniversary of the Federal Credit Union Act, passed by Congress in 1934. Early in July the Bureau paid the final installment of a long-term debt (nearly 5 years ahead of schedule), thereby becoming completely self-sustaining and self-financing.

Continued growth provided further opportunities for rendering service to additional thousands of American families. This service takes the form of timely loans at reasonable rates of interest for provident and productive purposes; financial counseling by many credit union officials to the members; and further encouragement to save for the proverbial "rainy day."

Credit unions enjoy certain inherent advantages which enable them to fulfill their mission of lending financial assistance and rounding out the financial education of the members. The cohesiveness of shareholder groups and the convenient location of credit union offices at places of employment present opportunities for service that might otherwise be lacking. Since credit unions are organized for the purpose of mutual assistance to the members, they can and should develop an esprit de corps that helps to sustain confidence in times of stress. Credit unions resist inflationary forces. The members' savings (shares) in credit unions have always exceeded members' borrowings from credit unions.

When the Federal Credit Union Act was passed a quarter of century ago, there were about 2,350 credit unions in the United States that had been chartered under State laws since the passage of the first State credit union law in Massachusetts in 1909. Today there are more than 9,300 active Federal credit unions alone, or about one-half the total number of active credit unions in the United States. Assets of the federally chartered groups totaled approximately \$2,150 million on June 30, 1959, and active membership approached the 5.5 million mark.

During fiscal year 1959, total assets increased 15 percent, membership rose 7 percent, and loans outstanding to members moved up from \$1,320 million on June 30, 1958, to \$1,460 million a year later, an increase of 11 percent. According to Federal Reserve Board estimates,

Federal credit unions held 3.7 percent of the consumer installment credit outstanding at the end of June 1958; a year later, their share of the total had moved up to almost 4 percent as installment credit held by Federal credit unions increased 14 percent in contrast to a rise of 8.5 percent for installment credit as a whole.

The Bureau of Federal Credit Unions is the supervisory body charged with the responsibility of administering the Federal Credit Union Act. The Bureau receives no appropriation from the Congress, and is now completely self-supporting from fees paid by the credit unions chartered under the Federal act. To aid the Bureau in converting from a partially tax-supported to a completely self-sustaining basis, the Congress authorized a \$250,000 loan in 1953. Repayment of the loan, together with interest totaling \$30,070, was completed in July 1959, nearly 5 years ahead of the July 1, 1964, due date specified in the act which authorized the loan.

As the credit union program moves forward, looming ever larger in the Nation's economy, the Bureau's responsibilities increase with each passing year. The credit unions are faced with new and bigger problems as they continue to grow, and the Bureau's task of supervising and examining an increasing number of larger groups becomes more complex. By way of illustration, the past few years have witnessed a trend toward machine bookkeeping and other electronic devices in the larger credit unions as their volume of business expands. The examination program of the Bureau, which represents a major phase of its operations, must cope with this development, and at the same time must provide simpler yet equally effective examination procedures for the small credit union.

Staff development is receiving increasing attention as the training needs of the examiners and other Bureau staff are geared to the growth and ever-changing requirements of a dynamic program. Just as the credit union must constantly be alert for ways to improve and expand the services to members, so must the Bureau move forward in its efforts to improve and expand its services to the credit unions. A well-informed, knowledgeable supervisory staff obviously contributes to this end. A broadened and continuing training program was emphasized during the past fiscal year when the Bureau created and filled a new position of Employee Development Officer.

The 25th Anniversary week was highlighted by a week of conferences in Washington of the Bureau's regional representatives and associate regional representatives, and publication in the June 1959 issue of the *Social Security Bulletin* of a commemorative article entitled "Federal Credit Unions: Twenty-five Years of Self-Help Security."

As part of the 25th Anniversary celebration and with the cooperation of the Voice of America, the story of credit unions in the United

States was broadcast throughout the world in English and to Europe and to the Far East in 14 other languages—Russian, Ukrainian, Mandarin Chinese, Cantonese Chinese, Hungarian, Indonesian, Greek, Serbo-Croat, Italian, Persian, Bulgarian, Polish, Czech, and Armenian.

At the conclusion of the first quarter century of the Federal credit union program, there is every indication that it is entering a new era of maturity. The ideals of the early credit union leaders are firmly embedded in the program as it moves forward with increasing vigor and with a new appreciation of the social significance of credit unions as part of the American way of life. Today's credit union leaders are giving increasing attention to the field of family financial counseling as an area of emphasis toward expansion of services of a social nature. Perhaps even broader in its application is the increased thought given to providing credit union services to low income groups. Financial gains must not obscure the basic purposes so cogently expressed in the motto of credit unions everywhere: "Not for Profit, Not for Charity—But for Service."

Table 1.—Social Security Administration: Funds available and obligations incurred, fiscal years 1959 and 1958 ¹

[In thousands; data as of June 30, 1959]

| Item | Funds available ² | | Obligations incurred | |
|--|------------------------------|------------------------|----------------------|-------------|
| | 1959 | 1958 | 1959 | 1958 |
| Total | \$2,181,882 | \$1,960,587 | \$2,180,039 | \$1,937,598 |
| Grants to States: | | | | |
| Public assistance | 1,957,960 | ³ 1,767,173 | 1,957,098 | 1,745,173 |
| Old-age assistance | | | 1,132,194 | 1,052,708 |
| Aid to the blind | | | 47,619 | 44,192 |
| Aid to dependent children | | | 626,546 | 525,318 |
| Aid to the permanently and totally disabled | | | 150,739 | 122,955 |
| Maternal and child health and welfare services | 45,000 | 41,500 | 44,728 | 40,722 |
| Maternal and child health services | 16,500 | 16,500 | 16,494 | 16,336 |
| Services for crippled children | 16,500 | 15,000 | 16,401 | 14,847 |
| Child welfare services | 12,000 | 10,000 | 11,833 | 9,539 |
| Administrative expenses: ⁴ | 178,922 | 151,910 | 178,213 | 151,703 |
| Office of the Commissioner ⁵ | 596 | 541 | 610 | 504 |
| Bureau of Old-Age and Survivors Insurance ⁶ | 170,614 | 144,692 | 170,087 | 144,449 |
| Bureau of Public Assistance | 2,164 | 1,982 | 2,142 | 1,974 |
| Children's Bureau ⁷ | 2,172 | 2,048 | 2,165 | 2,045 |
| White House Conference on Children and Youth | 150 | | 150 | |
| Bureau of Federal Credit Unions | 3,226 | 2,647 | 3,059 | 2,731 |

¹ Funds available and obligations reported by administrative agencies.

² Funds made available by regular and supplemental appropriations, authorizations, transfers, allotments, recoveries, and fee collections for services rendered.

³ Excludes \$3.4 million transferred to other DHEW appropriations accounts pursuant to P.L. 85-472 for meeting portion of increase pay in 1958.

⁴ Funds made available and obligations incurred for salaries, printing and binding, communications, traveling expenses, and all other objects of expenditure.

⁵ Appropriations by Congress from general revenues accounted for approximately 56 percent of the administrative expenses of the Office of the Commissioner in 1958 and 1959; balance from old-age and survivors insurance trust fund.

⁶ Administrative costs of the old-age, survivors, and disability insurance program which involved benefit payments of \$8,043,000,000 in 1958 and \$9,388,000,000, in 1959. Does not include construction costs of new buildings as follows: *Funds available:* 1959, \$8,979,461; 1958, \$30,140,163. *Obligations incurred:* 1959, \$1,345,587; 1958, \$22,370,702.

⁷ Includes expenses for investigating and reporting on matters pertaining to the welfare of children authorized by the act of 1912, as well as expenses for administration of grants to States.

Table 2.—*Financing social insurance under the Social Security Act: Contributions collected and trust fund operations, fiscal years 1957–59*

[In millions; independently rounded]

| Item | 1959 (preliminary) | 1958 | 1957 |
|---|--------------------|---------|---------|
| Contributions collected under— | | | |
| Federal Insurance Contributions Act ^{1 2} | \$8,459 | \$8,193 | \$6,877 |
| Federal Unemployment Tax Act ³ | 324 | 336 | 330 |
| State unemployment insurance laws ^{4 5} | 1,675 | 1,500 | 1,537 |
| Old-age and survivors insurance trust fund: | | | |
| Receipts, total..... | 8,109 | 7,824 | 7,100 |
| Net appropriations and deposits..... | 7,565 | 7,267 | 6,540 |
| Interest and profits on investments ⁶ | 543 | 557 | 561 |
| Expenditures, total..... | 9,379 | 8,041 | 6,665 |
| Monthly benefits and lump-sum payments ⁷ | \$ 9,174 | 7,875 | 6,515 |
| Administration..... | 206 | 166 | 150 |
| Assets, end of year..... | 21,542 | 22,813 | 23,029 |
| Disability insurance trust fund: | | | |
| Receipts, total..... | 928 | 942 | 338 |
| Net appropriations and deposits..... | 895 | 926 | 337 |
| Interest..... | 33 | 16 | 1 |
| Expenditures, total..... | 360 | 180 | 1 |
| Monthly benefits..... | 339 | 168 | |
| Administration..... | 21 | 12 | 1 |
| Assets, end of year..... | 1,666 | 1,099 | 337 |
| State accounts in unemployment trust fund: | | | |
| Receipts, total..... | 2,126 | 1,794 | 1,790 |
| Deposits ⁸ | 1,946 | 1,575 | 1,578 |
| Interest..... | 179 | 220 | 212 |
| Withdrawals for benefit payments..... | 2,797 | 2,926 | 1,514 |
| Assets, end of year..... | 6,688 | 7,360 | 8,492 |

¹ Contributions on earnings up to and including \$4,200 a year in 1957 and 1958, and \$4,800 a year beginning Jan. 1, 1959. Contribution rate paid by employers and employees: 2 percent each; 2½ percent each beginning Jan. 1, 1957; 2½ percent each beginning Jan. 1, 1959. Contribution rate paid by self-employed: 3 percent; 3¾ percent beginning Jan. 1, 1957; 3¾ percent beginning Jan. 1, 1959. Includes deposits by States under voluntary agreements for coverage of State and local employees. Includes deductions to adjust for reimbursements to general funds of the Treasury of the estimated amount of employee taxes subject to refund on wages in excess of wage base.

² Includes old-age and survivors insurance and, beginning Jan. 1, 1957, disability insurance contributions.

³ Prior to 1957 tax could be paid in quarterly installments by employers of 8 or more; beginning Jan. 31, 1957, tax payable annually on preceding year's wages by employers of 4 or more. Rate is 3 percent on first \$3,000 a year of wages paid to each employee by subject employer. Because of credit offset of up to 90 percent of amount assessed that is permitted for contributions paid under State unemployment insurance laws (or for full contribution if reduced by State experience rating provisions), effective rate is 0.3 percent of such wages.

⁴ Contributions plus penalties and interest collected from employers and contributions from employees, reported by State agencies.

⁵ Contributions and deposits by States usually differ slightly, because of time lag in making deposits. Deposits in the State accounts also include loans from the Federal unemployment account of the unemployment trust fund and the distribution of Federal tax collections among the States under the Employment Security Administrative Financing Act of 1954.

⁶ For 1957 and 1958 includes interest transferred from the railroad retirement account under the financial interchange provisions of the Railroad Retirement Act, as amended in 1951 and 1956.

⁷ Represents checks issued.

⁸ Includes payment of \$124 million to railroad retirement account under financial interchange (see footnote 6).

Source: Compiled from *Final Statement of Receipts and Expenditures of the United States Government*, other Treasury reports, and State agency reports.

Table 3.—Old-age, survivors, and disability insurance: Estimated number of families and beneficiaries receiving benefits and average monthly benefit in current-payment status, by family group, end of June 1959 and 1958

[In thousands, except for average benefit; data corrected to December 1959]

| Family classification of beneficiaries | June 30, 1959 | | | June 30, 1958 | | |
|--|--------------------|-------------------------|-----------------------------------|--------------------|-------------------------|-----------------------------------|
| | Number of families | Number of beneficiaries | Average monthly amount per family | Number of families | Number of beneficiaries | Average monthly amount per family |
| Total..... | 9, 728. 5 | 13, 181. 4 | ----- | 8, 797. 1 | 11, 905. 3 | ----- |
| Retired worker families..... | 7, 295. 6 | 9, 636. 6 | ----- | 6, 638. 5 | 8, 785. 1 | ----- |
| Worker only..... | 5, 153. 6 | 5, 153. 6 | \$68. 30 | 4, 662. 0 | 4, 662. 0 | \$62. 00 |
| Male..... | 2, 700. 6 | 2, 700. 6 | 77. 30 | 2, 500. 6 | 2, 500. 6 | 69. 80 |
| Female..... | 2, 453. 0 | 2, 453. 0 | 58. 30 | 2, 161. 4 | 2, 161. 4 | 53. 00 |
| Worker and aged wife..... | 1, 978. 1 | 3, 956. 2 | 120. 60 | 1, 835. 2 | 3, 670. 4 | 110. 20 |
| Worker and young wife ¹ | . 6 | 1. 2 | 113. 70 | . 8 | 1. 6 | 105. 10 |
| Worker and aged dependent husband..... | 14. 7 | 29. 4 | 104. 70 | 13. 7 | 27. 4 | 93. 20 |
| Worker and 1 or more children..... | 33. 5 | 78. 4 | 119. 70 | 29. 1 | 69. 4 | 106. 70 |
| Worker, wife aged 65 or over, and 1 or more children..... | 14. 7 | 47. 9 | 152. 70 | 8. 0 | 26. 2 | 139. 00 |
| Worker, young wife, and 1 or more children..... | 100. 3 | 369. 6 | 148. 20 | 89. 6 | 327. 8 | 128. 30 |
| Worker, husband, and 1 or more children..... | . 1 | . 3 | 135. 00 | . 1 | . 3 | 129. 00 |
| Survivor families..... | 2, 157. 7 | 3, 183. 6 | ----- | 1, 958. 2 | 2, 919. 8 | ----- |
| Aged widow..... | 1, 311. 5 | 1, 311. 5 | 56. 20 | 1, 165. 4 | 1, 165. 4 | 51. 60 |
| Aged dependent widower..... | 1. 7 | 1. 7 | 53. 20 | 1. 5 | 1. 5 | 48. 30 |
| Widowed mother only ¹ | 1. 1 | 1. 1 | 57. 20 | 1. 2 | 1. 2 | 50. 30 |
| Widowed mother and 1 child..... | 154. 2 | 308. 4 | 129. 00 | 145. 1 | 290. 2 | 116. 20 |
| Widowed mother and 2 children..... | 107. 9 | 323. 7 | 166. 50 | 101. 8 | 305. 4 | 149. 50 |
| Widowed mother and 3 or more children..... | 102. 7 | 494. 0 | 177. 50 | 96. 5 | 459. 6 | 148. 10 |
| Divorced wife and 1 or more children..... | . 3 | . 8 | 161. 60 | . 3 | . 8 | 137. 40 |
| Aged widow and 1 or more children..... | 8. 6 | 17. 8 | 113. 00 | 5. 8 | 11. 9 | 105. 50 |
| Widower and 1 or more children..... | (²) | (²) | 94. 30 | (²) | (²) | 94. 00 |
| 1 child only..... | 276. 5 | 276. 5 | 56. 40 | 258. 0 | 258. 0 | 51. 20 |
| 2 children..... | 104. 9 | 209. 8 | 97. 00 | 99. 4 | 198. 8 | 88. 10 |
| 3 children..... | 35. 1 | 105. 3 | 125. 00 | 34. 2 | 102. 6 | 113. 80 |
| 4 or more children..... | 22. 2 | 98. 8 | 150. 00 | 21. 3 | 95. 0 | 123. 60 |
| 1 aged dependent parent..... | 28. 5 | 28. 5 | 58. 60 | 26. 0 | 26. 0 | 52. 70 |
| 2 aged dependent parents..... | 1. 7 | 3. 4 | 110. 40 | 1. 7 | 3. 4 | 98. 40 |
| 1 or 2 aged dependent parents and 1 or more other survivors..... | . 8 | 2. 3 | 190. 00 | 0 | 0 | 0 |
| Disabled worker families ³ | 275. 2 | 361. 2 | ----- | 200. 4 | 200. 4 | 74. 40 |
| Worker only..... | 235. 6 | 235. 6 | 87. 70 | 200. 4 | 200. 4 | 74. 40 |
| Male..... | 179. 0 | 179. 0 | 91. 40 | 158. 8 | 158. 8 | 75. 50 |
| Female..... | 56. 6 | 56. 6 | 75. 80 | 41. 6 | 41. 6 | 70. 10 |
| Worker and aged wife..... | 12. 7 | 25. 4 | 130. 00 | ----- | ----- | ----- |
| Worker and aged dependent husband..... | . 1 | . 2 | 104. 00 | ----- | ----- | ----- |
| Worker and 1 or more children..... | 6. 4 | 18. 6 | 158. 00 | ----- | ----- | ----- |
| Worker, wife aged 65 or over, and 1 or more children..... | . 2 | . 6 | 200. 00 | ----- | ----- | ----- |
| Worker, young wife, and 1 or more children..... | 20. 2 | 80. 8 | 188. 00 | ----- | ----- | ----- |

¹ Benefits to children were being withheld.² Less than 50.³ Benefits to disabled workers aged 50-64 began July 1957, and benefits to their dependents began September 1958.

Table 4.—Old-age, survivors, and disability insurance: Number and amount of monthly benefits in current-payment status at end of June 1959 and amount of benefit payments in fiscal year 1959, by State ¹

[In thousands; data corrected to Dec. 9, 1959]

| Beneficiary's State of residence | Monthly benefits in current-payment status, June 30, 1959 | | | | | Benefit payments in fiscal year 1959 | | | |
|----------------------------------|---|----------------|-------------------|----------------|-----------------|--------------------------------------|-------------------|-------------------------|-----------------|
| | Total | | OASI ² | | DI ² | Total | OASI ² | | DI ² |
| | Number | Monthly amount | Number | Monthly amount | | | Monthly benefits | Lump-sum death payments | |
| Total..... | 13,181.4 | \$805,545 | 12,820.2 | \$778,404 | 361.2 | \$27,141 | \$8,899,522 | \$149,625 | \$839,231 |
| Alabama..... | 202.9 | 9,979 | 194.3 | 9,429 | 8.6 | 560 | 108,095 | 1,902 | 6,818 |
| Alaska..... | 5.7 | 322 | 5.5 | 314 | 0.1 | 8 | 3,564 | 83 | 39 |
| Arizona..... | 69.5 | 4,201 | 66.6 | 3,970 | 2.9 | 231 | 43,176 | 766 | 2,892 |
| Arkansas..... | 138.7 | 6,700 | 134.1 | 6,409 | 4.6 | 291 | 78,017 | 907 | 3,005 |
| California..... | 1,023.6 | 65,192 | 993.0 | 63,171 | 24.0 | 2,021 | 722,101 | 11,608 | 25,428 |
| Colorado..... | 109.0 | 6,536 | 106.9 | 6,374 | 2.1 | 163 | 72,033 | 1,149 | 2,035 |
| Connecticut..... | 203.8 | 14,138 | 198.7 | 13,709 | 5.2 | 429 | 156,754 | 2,593 | 5,383 |
| Delaware..... | 23.1 | 1,845 | 23.4 | 1,784 | 0.7 | 60 | 20,413 | 435 | 758 |
| District of Columbia..... | 44.4 | 2,659 | 43.2 | 2,564 | 1.2 | 95 | 29,552 | 656 | 1,208 |
| Florida..... | 408.6 | 25,663 | 396.4 | 24,703 | 12.2 | 960 | 282,448 | 3,607 | 12,023 |
| Georgia..... | 212.1 | 10,577 | 203.1 | 9,990 | 9.0 | 587 | 114,479 | 2,101 | 7,337 |
| Hawaii..... | 27.1 | 1,522 | 26.3 | 1,460 | 0.8 | 62 | 17,729 | 262 | 777 |
| Idaho..... | 48.3 | 2,843 | 47.5 | 2,783 | 0.8 | 62 | 32,835 | 477 | 751 |
| Illinois..... | 761.1 | 50,112 | 743.1 | 48,630 | 18.0 | 1,482 | 583,804 | 10,429 | 18,650 |
| Indiana..... | 23.6 | 1,412 | 22,902 | 378.7 | 9.4 | 732 | 274,794 | 2,404 | 9,117 |
| Iowa..... | 236.9 | 14,185 | 232.9 | 13,892 | 4.0 | 294 | 164,237 | 2,404 | 3,655 |
| Kansas..... | 171.5 | 9,936 | 168.2 | 9,694 | 3.3 | 242 | 115,484 | 1,621 | 3,022 |
| Kentucky..... | 240.5 | 12,405 | 230.6 | 11,840 | 9.9 | 566 | 144,914 | 2,154 | 6,916 |
| Louisiana..... | 156.1 | 8,144 | 149.7 | 7,723 | 6.3 | 421 | 95,256 | 1,833 | 5,241 |
| Maine..... | 94.0 | 5,446 | 91.5 | 5,273 | 2.5 | 173 | 63,476 | 60,408 | 2,155 |
| Maryland..... | 173.2 | 10,540 | 168.5 | 10,172 | 4.7 | 367 | 123,581 | 2,556 | 4,631 |
| Massachusetts..... | 467.0 | 30,716 | 454.7 | 29,777 | 12.3 | 939 | 358,743 | 3,411 | 11,747 |
| Michigan..... | 561.9 | 37,688 | 548.4 | 36,558 | 13.5 | 1,130 | 438,331 | 4,417 | 14,197 |
| Minnesota..... | 280.3 | 15,782 | 256.2 | 15,468 | 4.2 | 314 | 176,755 | 2,554 | 3,919 |
| Mississippi..... | 134.9 | 5,994 | 130.8 | 5,735 | 4.1 | 289 | 70,339 | 1,009 | 3,221 |
| Missouri..... | 368.7 | 21,387 | 330.0 | 20,730 | 8.8 | 637 | 249,308 | 3,772 | 8,239 |
| Montana..... | 62.4 | 3,244 | 51.3 | 3,160 | 1.1 | 85 | 37,545 | 558 | 1,051 |

| | | | | | | | | | | |
|---------------------|---------|--------|---------|--------|------|-------|-----------|-----------|--------|--------|
| Nebraska..... | 116.4 | 6,787 | 114.5 | 6,650 | 1.9 | 137 | 78,943 | 76,139 | 1,090 | 1,714 |
| Nevada..... | 13.6 | 873 | 13.3 | 843 | .4 | 30 | 10,237 | 9,617 | 246 | 374 |
| New Hampshire..... | 57.8 | 3,562 | 56.6 | 3,465 | 1.3 | 97 | 41,541 | 39,680 | 647 | 1,214 |
| New Jersey..... | 475.4 | 32,372 | 463.8 | 31,399 | 11.6 | 973 | 378,068 | 359,348 | 6,481 | 12,239 |
| New Mexico..... | 38.8 | 1,979 | 37.7 | 1,906 | 1.1 | 74 | 23,086 | 21,741 | 417 | 812 |
| New York..... | 1,365.8 | 90,631 | 1,330.4 | 87,794 | 35.3 | 2,853 | 1,057,522 | 1,003,821 | 17,787 | 35,914 |
| North Carolina..... | 13,481 | 92,734 | 12,758 | 87,794 | 11.2 | 723 | 138,326 | 146,680 | 2,633 | 9,013 |
| North Dakota..... | 42.8 | 2,458 | 42.4 | 2,400 | .4 | 28 | 28,627 | 27,849 | 431 | 347 |
| Ohio..... | 721.9 | 46,870 | 703.2 | 45,363 | 18.8 | 1,507 | 516,463 | 518,797 | 8,807 | 18,859 |
| Okahoma..... | 158.0 | 8,716 | 153.8 | 8,405 | 4.2 | 311 | 101,544 | 96,074 | 1,596 | 3,874 |
| Oregon..... | 156.3 | 9,848 | 153.2 | 9,605 | 3.1 | 243 | 114,322 | 109,739 | 1,547 | 3,036 |
| Pennsylvania..... | 957.0 | 62,030 | 926.5 | 59,082 | 30.5 | 2,348 | 722,989 | 681,712 | 11,990 | 29,287 |
| Puerto Rico..... | 81.2 | 2,610 | 80.5 | 2,585 | .6 | 25 | 30,554 | 29,842 | 380 | 332 |
| Rhode Island..... | 80.2 | 5,204 | 77.8 | 5,018 | 2.4 | 185 | 60,815 | 57,498 | 989 | 2,328 |
| South Carolina..... | 129.1 | 6,253 | 123.7 | 5,902 | 5.5 | 351 | 73,650 | 67,868 | 1,396 | 4,386 |
| South Dakota..... | 52.0 | 2,982 | 51.3 | 2,937 | .7 | 45 | 34,676 | 33,628 | 487 | 561 |
| Tennessee..... | 231.8 | 11,474 | 223.5 | 10,946 | 8.3 | 528 | 134,444 | 125,711 | 2,198 | 6,535 |
| Texas..... | 507.5 | 27,350 | 492.8 | 26,306 | 14.7 | 1,043 | 319,850 | 301,147 | 5,673 | 13,030 |
| Utah..... | 49.7 | 3,028 | 48.9 | 2,962 | .9 | 66 | 35,122 | 33,791 | 512 | 819 |
| Vermont..... | 35.7 | 2,087 | 34.7 | 2,015 | 1.0 | 72 | 24,338 | 23,083 | 361 | 894 |
| Virgin Islands..... | 37 | 37 | .9 | 36 | (*) | (*) | 423 | 410 | 7 | 6 |
| Virginia..... | 237.9 | 12,610 | 228.3 | 11,982 | 9.6 | 629 | 148,091 | 137,555 | 2,748 | 7,788 |
| Washington..... | 225.6 | 14,424 | 220.4 | 13,998 | 5.2 | 426 | 167,374 | 159,750 | 2,285 | 5,339 |
| West Virginia..... | 166.8 | 9,298 | 156.7 | 8,678 | 10.1 | 620 | 108,289 | 99,315 | 1,462 | 7,512 |
| Wisconsin..... | 332.4 | 20,782 | 325.5 | 20,247 | 6.8 | 535 | 241,320 | 230,944 | 3,690 | 6,686 |
| Wyoming..... | 19.8 | 1,196 | 19.4 | 1,167 | .4 | 29 | 13,869 | 13,256 | 245 | 368 |
| Foreign..... | 85.0 | 5,163 | 84.1 | 5,083 | .9 | 80 | 58,002 | 56,570 | 419 | 1,013 |

¹ Distribution by State estimated.

² Benefits under the old-age and survivors insurance (OASD) parts of the old-age, survivors, and disability insurance program are payable from the OASD trust fund to old-age insurance (retired-worker) beneficiaries and their dependents and to survivors of deceased workers. Benefits under the disability insurance (DI) part of the program

are payable from the DI trust fund to disability insurance (disabled worker) beneficiaries and, beginning September 1968, to their dependents.

³ Less than .50.

⁴ Less than \$500.

Table 5.—*Old-age, survivors, and disability insurance: Selected data on employers, taxable earnings, and contributions, by State, for specified periods*

[In thousands, except for average taxable earnings]

| State | Employers reporting taxable wages July-September 1958 ¹ | Calendar year 1956 | | | |
|-----------------------------|--|--|---|--------------------|--------------------------------------|
| | | Workers with taxable earnings ² | Amount of taxable earnings ³ | | Amount of contributions ⁴ |
| | | | Total | Average per worker | |
| Total..... | 4,090 | 68,600 | \$170,689,000 | \$2,490 | \$6,650,500 |
| Alabama..... | 59 | 1,080 | 2,136,000 | 1,970 | 83,500 |
| Alaska..... | 4 | 70 | 155,000 | 2,210 | 6,100 |
| Arizona..... | 25 | 390 | 854,000 | 2,170 | 33,300 |
| Arkansas..... | 35 | 560 | 865,000 | 1,550 | 33,000 |
| California..... | 350 | 5,740 | 15,392,000 | 2,680 | 600,200 |
| Colorado..... | 40 | 640 | 1,370,000 | 2,150 | 52,900 |
| Connecticut..... | 65 | 1,180 | 3,105,000 | 2,620 | 122,100 |
| Delaware..... | 12 | 230 | 539,000 | 2,370 | 21,100 |
| District of Columbia..... | 31 | 440 | 883,000 | 1,980 | 34,900 |
| Florida..... | 119 | 1,660 | 2,937,000 | 1,760 | 113,800 |
| Georgia..... | 83 | 1,360 | 2,505,000 | 1,840 | 97,800 |
| Hawaii..... | 12 | 190 | 422,000 | 2,180 | 16,500 |
| Idaho..... | 14 | 290 | 558,000 | 1,900 | 21,200 |
| Illinois..... | 229 | 4,550 | 11,857,000 | 2,610 | 462,400 |
| Indiana..... | 92 | 1,890 | 4,953,000 | 2,620 | 192,800 |
| Iowa..... | 68 | 1,180 | 2,515,000 | 2,130 | 93,900 |
| Kansas..... | 50 | 870 | 1,863,000 | 2,140 | 71,100 |
| Kentucky..... | 58 | 980 | 1,932,000 | 1,980 | 74,400 |
| Louisiana..... | 62 | 1,000 | 1,994,000 | 1,990 | 77,700 |
| Maine..... | 25 | 430 | 807,000 | 1,870 | 31,500 |
| Maryland..... | 71 | 1,160 | 2,587,000 | 2,230 | 101,300 |
| Massachusetts..... | 123 | 2,300 | 5,592,000 | 2,430 | 219,600 |
| Michigan..... | 155 | 3,430 | 9,584,000 | 2,790 | 376,100 |
| Minnesota..... | 73 | 1,270 | 2,831,000 | 2,230 | 107,800 |
| Mississippi..... | 36 | 650 | 1,056,000 | 1,610 | 40,900 |
| Missouri..... | 104 | 1,980 | 4,222,000 | 2,140 | 163,800 |
| Montana..... | 16 | 250 | 614,000 | 2,480 | 23,200 |
| Nebraska..... | 34 | 600 | 1,248,000 | 2,090 | 47,000 |
| Nevada..... | 7 | 140 | 268,000 | 1,930 | 10,400 |
| New Hampshire..... | 17 | 290 | 574,000 | 2,010 | 22,500 |
| New Jersey..... | 151 | 2,620 | 6,679,000 | 2,550 | 261,400 |
| New Mexico..... | 18 | 260 | 484,000 | 1,870 | 18,600 |
| New York..... | 498 | 7,660 | 20,735,000 | 2,710 | 812,400 |
| North Carolina..... | 91 | 1,540 | 3,019,000 | 1,960 | 117,600 |
| North Dakota..... | 13 | 210 | 436,000 | 2,030 | 15,500 |
| Ohio..... | 202 | 4,410 | 11,419,000 | 2,590 | 447,800 |
| Oklahoma..... | 52 | 910 | 1,751,000 | 1,920 | 67,500 |
| Oregon..... | 42 | 800 | 1,862,000 | 2,330 | 72,200 |
| Pennsylvania..... | 251 | 4,760 | 12,155,000 | 2,550 | 476,300 |
| Puerto Rico..... | 17 | 460 | 398,000 | 860 | 15,500 |
| Rhode Island..... | 21 | 540 | 1,127,000 | 2,100 | 44,300 |
| South Carolina..... | 45 | 880 | 1,544,000 | 1,760 | 60,500 |
| South Dakota..... | 16 | 260 | 483,000 | 1,860 | 17,700 |
| Tennessee..... | 72 | 1,230 | 2,268,000 | 1,840 | 88,100 |
| Texas..... | 222 | 3,540 | 7,346,000 | 2,070 | 285,800 |
| Utah..... | 16 | 340 | 711,000 | 2,070 | 27,700 |
| Vermont..... | 11 | 150 | 329,000 | 2,150 | 12,800 |
| Virginia..... | 84 | 1,320 | 2,758,000 | 2,080 | 107,600 |
| Virgin Islands..... | 1 | 10 | 13,000 | 930 | 500 |
| Washington..... | 64 | 1,030 | 2,609,000 | 2,540 | 101,200 |
| West Virginia..... | 36 | 660 | 1,490,000 | 2,270 | 58,600 |
| Wisconsin..... | 89 | 1,600 | 3,988,000 | 2,490 | 154,100 |
| Wyoming..... | 9 | 140 | 282,000 | 2,030 | 10,800 |
| Foreign ⁵ | ----- | 90 | 253,000 | 2,980 | 10,100 |
| Maritime ⁶ | ----- | 140 | 332,000 | 2,460 | 13,300 |

¹ State data represent number of employers reporting taxable wages by the State of their reporting head-quarters. An employer is a legal entity such as a corporation, partnership, or single ownership for which a single tax return is filed. Excludes agricultural employers.

² State data represent workers employed in the State at some time during the year. Workers employed in more than 1 State are counted once in each of the States in which employed.

³ State data represent taxable earnings distributed according to the State in which earned. Averages, based on unrounded estimates of workers and earnings, are rounded to nearest \$10.

⁴ Contributions based on a worker's annual taxable earnings, not more than \$1,200 in 1956. Contribution rate was 2 percent each for employees and employers and 3 percent for self-employed persons.

⁵ Employment and earnings data relate to citizens of the United States employed by American employers.

⁶ Relates to employment of officers and crews of American vessels.

Table 6.—Old-age, survivors, and disability insurance: Selected data on benefits, employers, workers, and taxable earnings for specified periods, 1957–59

[In thousands, except for average monthly benefit and average taxable earnings; corrected to Oct. 28, 1959]

| Item | 1959 | 1958 | 1957 |
|--|------------------|-----------------|-----------------|
| Fiscal year | | | |
| Benefits in current-payment status (end of period): | | | |
| Number (OASI and DI) ¹ | 13, 181. 4 | 11, 905. 3 | 10, 342. 1 |
| Number (OASI)..... | 12, 820. 2 | 11, 704. 9 | 10, 342. 1 |
| Number (DI)..... | 361. 2 | 200. 4 | ..... |
| Old-age (retired-worker)..... | 7, 295. 6 | 6, 638. 5 | 5, 832. 3 |
| Disability (disabled-worker)..... | 275. 2 | 200. 4 | ..... |
| Wife's or husband's (OASI and DI)..... | 2, 141. 8 | 1, 947. 4 | 1, 719. 0 |
| Wife's or husband's (OASI)..... | 2, 108. 5 | 1, 947. 4 | 1, 719. 0 |
| Wife's or husband's (DI)..... | 33. 2 | ..... | ..... |
| Child's (OASI and DI) ² | 1, 747. 7 | 1, 571. 9 | 1, 427. 4 |
| Child's (OASI) ² | 1, 694. 8 | 1, 571. 9 | 1, 427. 4 |
| Child's (DI) ² | 52. 8 | ..... | ..... |
| Widow's or widower's..... | 1, 322. 0 | 1, 172. 8 | 1, 020. 5 |
| Mother's..... | 366. 5 | 344. 9 | 314. 9 |
| Parent's..... | 32. 7 | 29. 4 | 28. 1 |
| Total monthly amount (OASI and DI)..... | \$805, 545 | \$659, 684 | \$554, 637 |
| Total monthly amount (OASI)..... | \$778, 404 | \$644, 773 | \$554, 637 |
| Total monthly amount (DI)..... | \$27, 141 | \$14, 911 | ..... |
| Old-age (retired-worker)..... | \$526, 701 | \$436, 244 | \$373, 230 |
| Disability (disabled-worker)..... | \$24, 324 | \$14, 911 | ..... |
| Wife's or husband's (OASI and DI)..... | \$81, 295 | \$67, 821 | \$58, 749 |
| Wife's or husband's (OASI)..... | \$80, 096 | \$67, 821 | \$58, 749 |
| Wife's or husband's (DI)..... | \$1, 199 | ..... | ..... |
| Child's (OASI and DI) ² | \$76, 209 | \$61, 471 | \$54, 283 |
| Child's (OASI) ² | \$74, 591 | \$61, 471 | \$54, 283 |
| Child's (DI) ² | \$1, 618 | ..... | ..... |
| Widow's or widower's..... | \$74, 359 | \$60, 457 | \$51, 707 |
| Mother's..... | \$20, 760 | \$17, 241 | \$15, 224 |
| Parent's..... | \$1, 896 | \$1, 538 | \$1, 445 |
| Average monthly amount: | | | |
| Old-age (retired-worker)..... | \$72. 19 | \$65. 71 | \$63. 99 |
| Disability (disabled-worker)..... | \$88. 40 | \$74. 42 | ..... |
| Wife's or husband's (OASI and DI)..... | \$37. 96 | \$34. 83 | \$34. 18 |
| Wife's or husband's (OASI)..... | \$37. 99 | \$34. 83 | \$34. 18 |
| Wife's or husband's (DI)..... | \$36. 09 | ..... | ..... |
| Child's (OASI and DI) ² | \$43. 61 | \$39. 11 | \$38. 03 |
| Child's (OASI) ² | \$44. 01 | \$39. 11 | \$38. 03 |
| Child's (DI) ² | \$30. 62 | ..... | ..... |
| Widow's or widower's..... | \$56. 25 | \$51. 55 | \$50. 67 |
| Mother's..... | \$56. 65 | \$49. 99 | \$48. 35 |
| Parent's..... | \$58. 02 | \$52. 34 | \$51. 38 |
| Benefit payments during period: | | | |
| Monthly benefits (OASI and DI)..... | \$9, 238, 753 | \$7, 900, 638 | \$6, 391, 690 |
| Monthly benefits (OASI)..... | \$8, 899, 522 | \$7, 732, 218 | \$6, 391, 690 |
| Monthly benefits (DI)..... | \$339, 231 | \$168, 420 | ..... |
| Old-age (retired-worker)..... | \$6, 041, 417 | \$5, 245, 777 | \$4, 340, 271 |
| Disability (disabled-worker)..... | \$311, 105 | \$168, 420 | ..... |
| Supplementary (OASI and DI)..... | \$1, 007, 142 | \$860, 488 | \$679, 289 |
| Supplementary (OASI)..... | \$979, 016 | \$860, 488 | \$679, 289 |
| Supplementary (DI)..... | \$28, 126 | ..... | ..... |
| Survivor..... | \$1, 879, 089 | \$1, 625, 953 | \$1, 372, 130 |
| Lump-sum death payments..... | \$149, 625 | \$142, 714 | \$122, 891 |
| Insured workers (midpoint of period—Jan. 1): ³ | | | |
| Fully insured..... | 77, 310 | 76, 210 | 74, 140 |
| Currently but not fully insured..... | 75, 810 | 75, 310 | 73, 860 |
| Estimated number of employers reporting taxable wages, 1st quarter of fiscal year..... | 4 4, 090 | 4 4, 060 | 4 4, 052 |
| Calendar year | | | |
| Estimated number of workers with taxable earnings..... | (⁴) | 70, 000 | 70, 500 |
| Estimated amount of taxable earnings..... | (⁵) | \$181, 000, 000 | \$181, 300, 000 |
| Average taxable earnings ⁶ | (⁵) | \$2, 590 | \$2, 570 |

¹ Benefits under the old-age and survivors insurance (OASI) parts of the old-age, survivors, and disability insurance program are payable from the OASI trust fund to old-age insurance (retired-worker) beneficiaries and their dependents and to survivors of deceased workers. Benefits under the disability insurance (DI) part of the program are payable from the DI trust fund to disability insurance (disabled-worker) beneficiaries and their dependents.

² Includes benefits payable to disabled persons aged 18 or over—dependent children of disabled, deceased, or retired workers—whose disability began before age 18.

³ Estimates of insured workers have not been adjusted to reflect changes in insurance status arising from: (1) provisions that coordinate the old-age, survivors, and disability insurance and railroad retirement programs and (2) wage credits for military service. Estimates are only partially adjusted to eliminate duplicate count of persons with taxable earnings reported on more than 1 account number.

⁴ Excludes agricultural employers.

⁵ Not available.

⁶ Rounded to nearest \$10.

Table 7.—*Special types of public assistance under plans approved by the Social Security Administration: Number of recipients and average payment, June 1959, and total payments to recipients, by program and State, fiscal year 1959*

[Includes vendor payments for medical care and cases receiving only such payments; data corrected to Oct. 16, 1959]

| State | Old-age assistance | | | Aid to dependent children | | | | | Aid to the blind | | | Aid to the permanently and totally disabled | | | |
|---------------------------|----------------------------|------------------------|-----------------------------------|----------------------------|-----------|-----------|----------------------------------|-------------------------------------|-----------------------------------|----------------------------|------------------------|---|----------------------------|------------------------|-----------|
| | Number of recipients, June | Payments to recipients | | Number of recipients, June | | | Payments to recipients | | | Number of recipients, June | Payments to recipients | | Number of recipients, June | Payments to recipients | |
| | | Average payment, June | Total, fiscal year (in thousands) | Families | Total 1 | Children | Average payment per family, June | Average payment per recipient, June | Total, fiscal year (in thousands) | | Average payment, June | Total, fiscal year (in thousands) | | | |
| | | | | | | | | | | | | | | | |
| Fiscal year: | | | | | | | | | | | | | | | |
| 1957..... | 2,503,790 | \$58.66 | \$1,724,289 | 647,185 | 2,398,728 | 1,831,860 | \$96.52 | \$26.04 | \$700,269 | 108,441 | \$63.87 | \$80,610 | 283,910 | \$59.10 | \$188,844 |
| 1958..... | 2,460,299 | 61.38 | 1,798,374 | 728,255 | 2,733,146 | 2,092,216 | 102.39 | 27.28 | 815,196 | 108,336 | 66.72 | 85,397 | 312,585 | 60.69 | 212,209 |
| 1959..... | 2,419,959 | 64.76 | 1,858,004 | 777,680 | 2,928,957 | 2,247,002 | 106.93 | 28.39 | 956,380 | 109,446 | 69.04 | 89,066 | 339,233 | 63.37 | 244,664 |
| Alabama..... | 100,316 | 45.02 | 52,267 | 22,600 | 89,787 | 69,968 | 27.90 | 7.02 | 7,221 | 1,657 | 35.33 | 652 | 12,704 | 33.31 | 4,823 |
| Alaska..... | 1,468 | 60.57 | 1,086 | 1,171 | 4,087 | 3,055 | 100.69 | 28.85 | 1,348 | 94 | 71.22 | 77 | --- | --- | --- |
| Arizona..... | 13,882 | 57.12 | 9,391 | 6,598 | 26,054 | 19,885 | 113.45 | 28.73 | 8,029 | 817 | 68.05 | 645 | --- | --- | --- |
| Arkansas..... | 56,265 | 48.66 | 32,004 | 7,931 | 23,722 | 19,770 | 162.33 | 15.66 | 5,402 | 2,047 | 53.64 | 1,288 | 7,093 | 36.62 | 2,955 |
| California..... | 261,607 | 83.86 | 266,981 | 71,468 | 253,428 | 197,170 | 124.09 | 45.78 | 132,483 | 14,087 | 103.32 | 17,512 | 6,361 | 86.80 | 4,873 |
| Colorado..... | 51,748 | 98.01 | 59,647 | 7,079 | 27,207 | 21,236 | 124.09 | 32.29 | 10,157 | 312 | 76.52 | 288 | 5,610 | 65.80 | 4,129 |
| Connecticut..... | 14,857 | 110.17 | 20,354 | 7,287 | 23,996 | 17,833 | 156.52 | 47.53 | 13,398 | 303 | 112.81 | 395 | 2,336 | 134.95 | 3,376 |
| Delaware..... | 1,412 | 49.02 | 880 | 1,679 | 6,272 | 4,814 | 87.67 | 23.47 | 1,755 | 264 | 72.72 | 227 | 336 | 64.52 | 242 |
| District of Columbia..... | 3,221 | 64.32 | 2,414 | 3,835 | 16,782 | 13,198 | 145.40 | 33.23 | 6,081 | 228 | 68.10 | 191 | 2,642 | 74.63 | 2,189 |
| Florida..... | 70,096 | 53.83 | 44,792 | 27,692 | 101,806 | 78,949 | 59.60 | 16.21 | 18,921 | 2,547 | 58.93 | 1,778 | 8,135 | 60.19 | 5,078 |
| Georgia..... | 98,155 | 47.46 | 54,465 | 15,706 | 58,380 | 44,919 | 88.56 | 23.82 | 16,456 | 3,545 | 52.54 | 2,160 | 18,879 | 51.95 | 10,323 |
| Hawaii..... | 1,488 | 58.45 | 1,004 | 2,583 | 10,055 | 7,981 | 132.99 | 34.16 | 4,028 | 93 | 66.68 | 71 | 1,077 | 71.81 | 892 |
| Idaho..... | 7,599 | 64.06 | 5,896 | 1,937 | 7,128 | 5,246 | 148.31 | 40.30 | 3,339 | 173 | 68.88 | 143 | 959 | 69.58 | 786 |
| Illinois..... | 77,861 | 69.66 | 65,610 | 34,310 | 140,136 | 107,597 | 152.53 | 37.35 | 61,742 | 3,099 | 78.77 | 2,993 | 17,780 | 71.52 | 17,383 |
| Indiana..... | 29,442 | 59.67 | 21,061 | 8,780 | 41,835 | 31,507 | 101.83 | 28.01 | 13,661 | 1,911 | 74.04 | 1,593 | --- | --- | --- |
| Iowa..... | 35,874 | 72.58 | 30,724 | 11,506 | 82,203 | 24,205 | 132.29 | 36.07 | 12,781 | 1,457 | 87.51 | 1,491 | --- | --- | --- |
| Kansas..... | 29,545 | 77.32 | 27,618 | 5,841 | 21,904 | 17,121 | 132.58 | 35.35 | 8,863 | 606 | 85.02 | 612 | 4,203 | 81.79 | 4,086 |
| Kentucky..... | 57,203 | 43.27 | 28,909 | 20,807 | 74,846 | 56,259 | 72.39 | 20.12 | 17,966 | 3,167 | 44.03 | 1,657 | 8,001 | 44.11 | 3,983 |
| Louisiana..... | 124,614 | 66.13 | 97,692 | 24,277 | 98,831 | 76,559 | 89.32 | 21.94 | 25,639 | 2,613 | 76.31 | 2,316 | 15,356 | 53.77 | 9,541 |
| Maine..... | 11,882 | 65.04 | 8,723 | 5,656 | 19,845 | 14,593 | 95.78 | 27.30 | 6,119 | 463 | 69.13 | 361 | 1,888 | 70.89 | 1,339 |

| | | | | | | | | | | | | | | | |
|----------------|---------|--------|---------|--------|---------|---------|--------|-------|---------|--------|--------|--------|--------|--------|--------|
| Maryland | 9,649 | 59,43 | 6,673 | 8,505 | 35,162 | 27,515 | 117,26 | 28,36 | 10,815 | 448 | 62,98 | 334 | 5,412 | 65,08 | 4,104 |
| Massachusetts | 81,934 | 96,62 | 96,257 | 14,439 | 48,198 | 36,079 | 147,12 | 44,07 | 25,846 | 2,122 | 117,35 | 2,890 | 10,025 | 116,06 | 13,455 |
| Michigan | 48,723 | 71,32 | 55,270 | 27,534 | 97,138 | 71,031 | 131,48 | 38,12 | 40,596 | 1,813 | 76,32 | 1,639 | 4,226 | 83,85 | 3,924 |
| Minnesota | 48,273 | 86,24 | 43,632 | 59,639 | 32,062 | 25,580 | 151,93 | 44,43 | 16,437 | 1,119 | 96,44 | 1,293 | 2,215 | 61,20 | 1,521 |
| Mississippi | 119,367 | 29,83 | 28,936 | 18,635 | 71,849 | 56,396 | 41,04 | 10,65 | 8,497 | 3,997 | 38,53 | 2,698 | 1,8774 | 29,95 | 2,577 |
| Missouri | 110,767 | 55,87 | 80,936 | 25,983 | 98,038 | 74,122 | 90,16 | 23,90 | 23,833 | 5,193 | 65,00 | 3,835 | 15,458 | 57,94 | 10,521 |
| Montana | 7,276 | 63,61 | 3,692 | 1,854 | 6,820 | 3,318 | 122,11 | 33,20 | 2,785 | 351 | 74,64 | 3,320 | 1,430 | 70,76 | 1,232 |
| Nebraska | 15,775 | 67,98 | 12,732 | 2,819 | 10,481 | 7,966 | 102,82 | 27,65 | 3,528 | 976 | 82,95 | 935 | 1,570 | 70,32 | 1,254 |
| Nevada | 2,608 | 67,72 | 2,126 | 1,025 | 10,387 | 2,623 | 88,70 | 26,84 | 1,028 | 1,186 | 98,51 | 193 | --- | --- | --- |
| New Hampshire | 5,087 | 71,17 | 4,821 | 1,121 | 4,222 | 3,198 | 155,40 | 41,26 | 1,886 | 239 | 72,27 | 214 | 397 | 87,64 | 379 |
| New Jersey | 19,074 | 87,92 | 19,204 | 10,954 | 36,563 | 27,763 | 154,04 | 46,15 | 17,610 | 922 | 84,44 | 896 | 6,014 | 96,06 | 6,174 |
| New Mexico | 10,528 | 63,10 | 7,612 | 7,231 | 27,685 | 21,272 | 115,47 | 30,16 | 9,404 | 391 | 63,52 | 284 | 2,225 | 69,04 | 1,670 |
| New York | 85,719 | 103,47 | 104,211 | 66,145 | 257,042 | 193,432 | 164,06 | 42,22 | 129,625 | 4,007 | 111,55 | 5,144 | 37,994 | 102,36 | 45,463 |
| North Carolina | 50,270 | 40,82 | 23,488 | 26,565 | 105,039 | 80,965 | 76,72 | 19,40 | 22,659 | 5,111 | 51,93 | 2,954 | 17,884 | 47,47 | 9,262 |
| North Dakota | 7,429 | 83,55 | 7,422 | 1,745 | 6,473 | 5,025 | 142,30 | 38,36 | 2,914 | 95 | 68,85 | 84 | 1,061 | 92,94 | 1,155 |
| Ohio | 90,057 | 69,47 | 71,444 | 24,261 | 94,687 | 72,571 | 107,90 | 27,65 | 29,209 | 3,694 | 64,10 | 2,844 | 10,606 | 67,38 | 7,977 |
| Oklahoma | 91,779 | 76,38 | 80,629 | 17,416 | 60,594 | 45,954 | 110,28 | 31,70 | 21,508 | 1,883 | 93,96 | 2,027 | 8,920 | 83,78 | 8,531 |
| Oregon | 17,751 | 74,59 | 17,119 | 5,991 | 21,469 | 16,217 | 128,81 | 35,95 | 9,457 | 1,272 | 81,86 | 288 | 3,013 | 82,25 | 5,005 |
| Pennsylvania | 49,929 | 67,40 | 36,053 | 44,631 | 175,250 | 133,248 | 119,71 | 30,48 | 61,024 | 17,377 | 62,22 | 13,300 | 16,131 | 59,13 | 11,054 |
| Puerto Rico | 40,463 | 8,20 | 3,976 | 51,935 | 190,923 | 152,953 | 15,04 | 4,09 | 8,418 | 1,862 | 8,25 | 176 | 21,485 | 8,85 | 2,194 |
| Rhode Island | 6,963 | 74,48 | 6,267 | 4,552 | 16,439 | 12,324 | 127,78 | 35,38 | 6,792 | 127 | 72,96 | 112 | 2,726 | 80,35 | 2,432 |
| South Carolina | 33,918 | 37,87 | 16,685 | 9,674 | 38,400 | 30,244 | 55,82 | 14,04 | 6,293 | 1,733 | 42,19 | 882 | 7,876 | 34,79 | 3,227 |
| South Dakota | 9,218 | 58,63 | 6,196 | 3,123 | 10,691 | 8,061 | 99,79 | 29,15 | 3,594 | 164 | 57,92 | 115 | 1,097 | 61,17 | 702 |
| Tennessee | 56,744 | 43,74 | 28,937 | 21,975 | 81,087 | 61,108 | 70,44 | 19,09 | 17,756 | 2,887 | 47,86 | 1,610 | 7,859 | 48,30 | 3,730 |
| Texas | 223,409 | 52,06 | 136,197 | 24,658 | 102,344 | 78,044 | 70,90 | 17,08 | 21,272 | 6,382 | 57,04 | 4,224 | 5,126 | 52,75 | 2,662 |
| Utah | 8,208 | 66,43 | 6,661 | 3,470 | 12,289 | 9,153 | 131,44 | 37,11 | 5,290 | 2,005 | 70,34 | 178 | 2,199 | 72,29 | 1,745 |
| Vermont | 5,872 | 57,16 | 3,816 | 1,274 | 4,516 | 3,382 | 108,38 | 30,57 | 1,421 | 135 | 60,33 | 93 | 817 | 59,89 | 512 |
| Virgin Islands | 584 | 23,40 | 160 | 217 | 780 | 648 | 43,17 | 12,01 | 105 | 20 | (2) | 6 | 101 | 25,64 | 30 |
| Virginia | 15,195 | 41,12 | 7,214 | 9,279 | 37,292 | 29,262 | 82,48 | 20,52 | 8,620 | 1,228 | 46,52 | 661 | 6,085 | 47,03 | 3,174 |
| Washington | 51,915 | 80,90 | 57,539 | 11,732 | 41,004 | 30,718 | 160,95 | 46,05 | 22,407 | 748 | 105,90 | 907 | 6,079 | 106,80 | 7,431 |
| West Virginia | 20,435 | 34,28 | 8,950 | 20,482 | 78,846 | 61,343 | 87,37 | 22,70 | 21,531 | 1,049 | 39,84 | 513 | 7,423 | 35,83 | 3,389 |
| Wisconsin | 37,170 | 78,22 | 33,413 | 9,304 | 33,601 | 25,564 | 159,18 | 44,08 | 15,073 | 1,022 | 89,61 | 964 | 1,317 | 120,39 | 1,726 |
| Wyoming | 3,469 | 72,21 | 3,055 | 768 | 2,769 | 2,106 | 132,49 | 36,75 | 1,163 | 65 | 69,51 | 38 | 536 | 74,51 | 461 |

¹ Includes as recipients the children and 1 parent or other adult relative in families in which the requirements of at least 1 such adult were considered in determining the amount of assistance.

² Average payment not computed on base of less than 50 recipients.

Table 3.—Special types of public assistance under plans approved by the Social Security Administration: Federal grants to States and total expenditures and percent from Federal funds, by program and State, fiscal year 1959

| State | Federal grants to States ¹ | | | Expenditures for assistance and administration | | | | | | | | | |
|----------------------|---------------------------------------|--------------------|---------------------------|--|---|--------------------|----------------------------|---------------------------|----------------------------|------------------|----------------------------|---|----------------------------|
| | Total | Old-age assistance | Aid to dependent children | Aid to the blind | Aid to the permanently and totally disabled | Old-age assistance | | Aid to dependent children | | Aid to the blind | | Aid to the permanently and totally disabled | |
| | | | | | | Amount | Percent from Federal funds | Amount | Percent from Federal funds | Amount | Percent from Federal funds | Amount | Percent from Federal funds |
| Fiscal year: | | | | | | | | | | | | | |
| 1957 | \$1,586,361 | \$963,284 | \$443,210 | \$41,361 | \$108,506 | \$1,832,190 | 55.1 | \$776,479 | 58.0 | \$87,293 | 47.6 | \$211,171 | 51.3 |
| 1958 | 1,745,173 | 1,052,708 | 525,318 | 44,192 | 122,955 | 1,911,217 | 55.4 | 902,651 | 58.7 | 92,549 | 47.8 | 238,087 | 52.3 |
| 1959 | 1,957,098 | 1,132,194 | 626,546 | 47,619 | 150,739 | 1,973,089 | 58.3 | 1,056,618 | 59.1 | 96,806 | 49.6 | 273,290 | 55.3 |
| Alabama | 51,256 | 40,091 | 6,641 | 536 | 3,988 | 54,758 | 73.7 | 1,436 | 79.0 | 690 | 76.7 | 5,259 | 76.4 |
| Alaska | 1,715 | 719 | 9,945 | 51 | ----- | 1,189 | 61.8 | 8,436 | 68.6 | 86 | 57.8 | ----- | ----- |
| Arizona | 13,333 | 6,776 | 6,114 | 443 | ----- | 6,181 | 70.6 | 8,235 | 74.6 | 670 | 67.4 | ----- | ----- |
| Arkansas | 31,638 | 23,533 | 9,802 | 939 | 2,364 | 33,021 | 72.3 | 5,734 | 80.1 | 1,330 | 71.1 | 3,221 | 74.8 |
| California | 218,613 | 138,148 | 68,886 | 7,490 | 4,089 | 287,112 | 48.3 | 151,566 | 45.3 | 19,422 | 39.4 | 5,996 | 49.7 |
| Colorado | 34,589 | 24,547 | 7,034 | 175 | 2,833 | 61,658 | 40.7 | 11,303 | 62.7 | 3,325 | 54.1 | 4,703 | 62.5 |
| Connecticut | 15,180 | 7,304 | 6,398 | 155 | 1,122 | 21,664 | 37.0 | 14,485 | 43.0 | 420 | 39.5 | 3,653 | 32.4 |
| Delaware | 2,311 | 622 | 1,351 | 144 | 1,104 | 2,965 | 66.0 | 1,940 | 70.5 | 257 | 58.8 | 2,314 | 60.1 |
| District of Columbia | 7,262 | 1,736 | 4,133 | 116 | 1,277 | 2,651 | 60.7 | 6,716 | 39.9 | 207 | 38.6 | 2,314 | 55.3 |
| Florida | 54,122 | 32,271 | 16,837 | 1,263 | 3,751 | 47,130 | 68.4 | 21,114 | 73.0 | 1,888 | 67.2 | 3,703 | 66.4 |
| Georgia | 64,597 | 41,632 | 13,407 | 1,635 | 7,923 | 57,243 | 72.5 | 17,537 | 75.2 | 2,284 | 71.2 | 11,124 | 71.1 |
| Hawaii | 4,025 | 698 | 2,723 | 46 | 557 | 1,097 | 63.2 | 4,539 | 58.5 | 82 | 39.3 | 1,007 | 55.3 |
| Idaho | 6,687 | 4,078 | 1,969 | 99 | 541 | 6,181 | 67.5 | 3,617 | 53.5 | 136 | 63.3 | 1,870 | 62.6 |
| Illinois | 87,647 | 40,552 | 35,822 | 1,717 | 9,556 | 71,462 | 57.7 | 66,863 | 53.2 | 3,377 | 57.1 | 19,131 | 50.1 |
| Indiana | 24,710 | 13,338 | 10,347 | 1,025 | ----- | 23,016 | 61.4 | 15,099 | 67.6 | 1,837 | 56.4 | ----- | ----- |
| Iowa | 28,566 | 19,406 | 8,341 | 819 | ----- | 32,646 | 60.8 | 13,835 | 59.5 | 1,615 | 51.1 | ----- | ----- |
| Kansas | 24,681 | 16,264 | 5,701 | 347 | 2,369 | 29,384 | 56.0 | 9,619 | 58.9 | 658 | 52.4 | 4,410 | 33.4 |
| Kentucky | 41,583 | 22,263 | 14,985 | 1,275 | 3,060 | 30,200 | 73.8 | 19,218 | 77.3 | 1,735 | 73.5 | 4,337 | 69.8 |
| Louisiana | 99,013 | 67,936 | 21,853 | 1,432 | 7,793 | 102,424 | 97.0 | 28,647 | 74.7 | 2,461 | 58.7 | 10,860 | 68.4 |
| Maine | 12,275 | 6,216 | 4,847 | 248 | 904 | 9,163 | 89.5 | 6,943 | 73.3 | 377 | 67.7 | 1,465 | 65.0 |

| | | | | | | | | | | | | | |
|----------------|---------|--------|--------|-------|--------|---------|------|---------|------|--------|------|--------|------|
| Maryland | 15,102 | 4,344 | 7,847 | 218 | 2,693 | 7,098 | 63.2 | 12,177 | 66.9 | 353 | 62.3 | 4,387 | 61.6 |
| Massachusetts | 41,898 | 42,531 | 13,050 | 1,051 | 5,266 | 102,747 | 42.9 | 28,625 | 45.2 | 3,036 | 35.9 | 14,811 | 37.1 |
| Michigan | 59,425 | 32,827 | 23,688 | 903 | 2,006 | 59,160 | 57.2 | 43,160 | 54.5 | 1,711 | 53.9 | 4,162 | 48.5 |
| Minnesota | 35,671 | 25,116 | 8,815 | 621 | 1,119 | 31,186 | 51.2 | 17,839 | 49.2 | 1,387 | 45.3 | 1,720 | 65.1 |
| Mississippi | 35,785 | 23,834 | 7,576 | 2,099 | 2,276 | 30,499 | 78.2 | 9,568 | 78.6 | 2,806 | 74.4 | 3,023 | 75.6 |
| Missouri | 55,987 | 20,170 | 2,238 | 2,238 | 7,320 | 84,312 | 66.6 | 27,618 | 73.1 | 4,171 | 57.2 | 11,236 | 65.8 |
| Montana | 6,663 | 3,775 | 1,922 | 197 | 798 | 6,128 | 62.9 | 3,094 | 60.8 | 368 | 54.3 | 1,378 | 58.1 |
| Nebraska | 12,834 | 8,640 | 2,787 | 547 | 860 | 13,642 | 65.2 | 3,829 | 71.1 | 1,000 | 54.0 | 1,401 | 62.4 |
| Nevada | 2,824 | 1,367 | 859 | 97 | 2,309 | 2,309 | 58.9 | 1,239 | 66.3 | 253 | 44.0 | 1,401 | 62.4 |
| New Hampshire | 4,094 | 2,654 | 1,094 | 135 | 211 | 4,666 | 59.3 | 2,082 | 53.2 | 234 | 57.4 | 447 | 49.3 |
| New Jersey | 21,704 | 9,879 | 8,490 | 498 | 2,827 | 21,266 | 48.3 | 18,833 | 45.4 | 1,048 | 50.1 | 7,386 | 44.4 |
| New Mexico | 14,515 | 5,760 | 7,318 | 213 | 1,225 | 8,147 | 70.3 | 10,172 | 72.2 | 6,057 | 70.5 | 1,861 | 66.4 |
| New York | 141,329 | 45,511 | 72,388 | 2,344 | 21,087 | 116,122 | 41.5 | 150,627 | 49.0 | 6,037 | 40.4 | 52,703 | 42.4 |
| North Carolina | 46,767 | 18,467 | 18,686 | 2,344 | 7,270 | 24,741 | 74.5 | 24,338 | 78.3 | 3,349 | 70.2 | 9,966 | 72.2 |
| North Dakota | 6,625 | 4,160 | 1,794 | 60 | 610 | 7,970 | 53.4 | 3,178 | 56.4 | 97 | 61.4 | 1,272 | 48.0 |
| Ohio | 72,424 | 43,159 | 22,110 | 1,949 | 5,207 | 76,459 | 59.5 | 31,785 | 68.4 | 3,197 | 61.5 | 8,851 | 59.9 |
| Oklahoma | 71,966 | 50,311 | 15,614 | 1,026 | 5,015 | 83,018 | 61.1 | 22,539 | 70.4 | 2,098 | 50.5 | 9,063 | 55.4 |
| Oregon | 17,729 | 9,429 | 5,465 | 150 | 2,685 | 18,773 | 51.8 | 10,648 | 51.4 | 311 | 49.3 | 5,633 | 48.4 |
| Pennsylvania | 78,836 | 24,308 | 43,202 | 3,709 | 7,617 | 39,171 | 61.6 | 67,598 | 64.1 | 13,968 | 25.3 | 12,773 | 57.8 |
| Puerto Rico | 8,477 | 2,168 | 4,842 | 107 | 1,360 | 4,556 | 50.0 | 9,576 | 48.7 | 213 | 50.0 | 2,703 | 50.0 |
| Rhode Island | 9,290 | 3,562 | 4,185 | 68 | 1,414 | 6,724 | 53.8 | 7,293 | 57.1 | 123 | 55.5 | 2,678 | 50.7 |
| South Carolina | 21,369 | 12,379 | 5,581 | 699 | 2,701 | 16,626 | 74.6 | 6,887 | 79.0 | 949 | 72.9 | 3,575 | 74.7 |
| South Dakota | 7,961 | 4,481 | 2,845 | 89 | 546 | 6,664 | 69.8 | 3,924 | 71.2 | 129 | 69.0 | 791 | 68.8 |
| Tennessee | 41,762 | 22,500 | 14,980 | 1,232 | 3,044 | 30,899 | 73.2 | 19,199 | 77.8 | 1,706 | 72.2 | 4,125 | 71.6 |
| Texas | 123,197 | 99,169 | 18,658 | 2,999 | 2,371 | 140,064 | 70.8 | 23,214 | 79.0 | 4,387 | 69.6 | 3,141 | 68.2 |
| Texas | 9,135 | 4,456 | 3,419 | 118 | 1,141 | 6,368 | 66.9 | 5,745 | 58.6 | 1,877 | 63.8 | 1,832 | 62.4 |
| Vermont | 4,330 | 2,792 | 1,073 | 68 | 387 | 4,043 | 70.1 | 1,563 | 70.4 | 99 | 69.7 | 590 | 69.1 |
| Virgin Islands | 195 | 102 | 69 | 5 | 19 | 200 | 49.8 | 151 | 49.9 | 8 | 49.6 | 37 | 49.9 |
| Virginia | 16,276 | 5,751 | 7,453 | 527 | 2,545 | 7,982 | 73.1 | 9,628 | 76.3 | 764 | 70.0 | 3,607 | 70.7 |
| Washington | 42,045 | 27,145 | 11,360 | 357 | 3,153 | 59,827 | 45.6 | 23,697 | 45.8 | 952 | 41.1 | 7,813 | 40.2 |
| West Virginia | 26,562 | 6,771 | 16,762 | 384 | 2,645 | 9,349 | 75.0 | 22,139 | 75.4 | 538 | 73.5 | 3,636 | 73.5 |
| Wisconsin | 28,297 | 18,682 | 8,348 | 546 | 691 | 36,116 | 53.9 | 17,128 | 48.3 | 1,051 | 52.2 | 1,859 | 37.9 |
| Wyoming | 2,863 | 1,847 | 713 | 34 | 269 | 3,274 | 57.0 | 1,294 | 54.3 | 62 | 56.3 | 495 | 55.4 |

¹ Based on cash advanced for the year; may differ slightly from fiscal-year expenditures from Federal funds reported by States.

Table 9.—*Maternal and child health and welfare services: Grants to States for maternal and child health services, services for crippled children, and child welfare services under the Social Security Act, by program and State, fiscal year 1959*¹

[In thousands]

| State | Maternal and child health services | Crippled children's services | Child welfare services |
|---------------------------|------------------------------------|------------------------------|------------------------|
| United States..... | \$16,494.1 | ² \$15,170.6 | \$11,833.3 |
| Alabama..... | 547.8 | 462.5 | 369.6 |
| Alaska..... | 163.6 | 208.7 | 57.4 |
| Arizona..... | 148.7 | ..... | 130.0 |
| Arkansas..... | 292.6 | 249.2 | 249.9 |
| California..... | 795.8 | 759.9 | 415.2 |
| Colorado..... | 329.3 | 176.8 | 146.8 |
| Connecticut..... | 246.3 | 213.7 | 116.1 |
| Delaware..... | 104.3 | 95.7 | 63.4 |
| District of Columbia..... | 246.5 | 171.7 | 40.0 |
| Florida..... | 449.7 | 302.7 | 252.8 |
| Georgia..... | 453.3 | 449.6 | 371.7 |
| Hawaii..... | 172.4 | 134.4 | 68.4 |
| Idaho..... | 137.8 | 119.2 | 59.8 |
| Illinois..... | 448.6 | 454.2 | 360.2 |
| Indiana..... | 315.1 | 253.5 | 129.0 |
| Iowa..... | 235.4 | 313.0 | 242.6 |
| Kansas..... | 205.1 | 213.8 | 185.6 |
| Kentucky..... | 369.6 | 384.5 | 357.1 |
| Louisiana..... | 353.6 | 358.2 | 289.4 |
| Maine..... | 135.6 | 120.2 | 108.7 |
| Maryland..... | 389.8 | 303.4 | 174.6 |
| Massachusetts..... | 423.7 | 309.0 | 115.2 |
| Michigan..... | 553.8 | 504.9 | 416.9 |
| Minnesota..... | 378.4 | 433.5 | 281.3 |
| Mississippi..... | 380.3 | 363.2 | 336.1 |
| Missouri..... | 317.8 | 306.9 | 282.0 |
| Montana..... | 117.6 | 151.3 | 103.9 |
| Nebraska..... | 107.0 | 134.4 | 117.2 |
| Nevada..... | 156.0 | 84.1 | 50.8 |
| New Hampshire..... | 103.2 | 98.6 | 73.4 |
| New Jersey..... | 239.5 | 206.4 | 126.0 |
| New Mexico..... | 216.8 | 152.8 | 115.5 |
| New York..... | 759.2 | 549.9 | 376.7 |
| North Carolina..... | 558.2 | 635.3 | 557.9 |
| North Dakota..... | 112.4 | 103.7 | 116.2 |
| Ohio..... | 572.6 | 531.2 | 473.7 |
| Oklahoma..... | 231.0 | 273.8 | 209.7 |
| Oregon..... | 152.9 | 168.7 | 166.1 |
| Pennsylvania..... | 743.8 | 652.7 | 524.2 |
| Rhode Island..... | 148.1 | 102.7 | 57.8 |
| South Carolina..... | 386.0 | 348.3 | 333.4 |
| South Dakota..... | 76.9 | 85.8 | 117.9 |
| Tennessee..... | 501.4 | 452.1 | 380.3 |
| Texas..... | 654.3 | 839.1 | 586.1 |
| Utah..... | 137.6 | 110.4 | 94.1 |
| Vermont..... | 107.2 | 92.1 | 78.1 |
| Virginia..... | 549.3 | 391.2 | 360.7 |
| Washington..... | 265.5 | 172.9 | 191.7 |
| West Virginia..... | 214.8 | 288.5 | 254.5 |
| Wisconsin..... | 226.3 | 320.9 | 315.8 |
| Wyoming..... | 101.8 | 88.7 | 65.1 |
| Puerto Rico..... | 367.4 | 386.4 | 324.9 |
| Virgin Islands..... | 92.4 | 86.2 | 41.8 |

¹ On checks issued basis less refunds.

² Includes \$269,600 derived from \$1.5 million supplemental appropriation to be used only for children with congenital heart diseases to remain available until June 30, 1960.

Table 10.—*Federal credit unions: Number of members, amount of assets, amount of shares, and amount of loans outstanding, Dec. 31, 1935–58*¹

| Year | Number of operating Federal credit unions | Number of members | Assets | Shares | Loans outstanding |
|-----------|---|-------------------|---------------|---------------|-------------------|
| 1935..... | 772 | 119,420 | \$2,372,100 | \$2,228,400 | \$1,834,200 |
| 1936..... | 1,751 | 309,700 | 9,158,100 | 8,510,900 | 7,343,800 |
| 1937..... | 2,313 | 483,920 | 19,264,700 | 17,649,700 | 15,695,300 |
| 1938..... | 2,760 | 632,050 | 29,629,000 | 26,876,100 | 23,830,100 |
| 1939..... | 3,182 | 850,770 | 47,810,600 | 43,326,900 | 37,673,000 |
| 1940..... | 3,756 | 1,127,940 | 72,530,200 | 65,805,800 | 55,818,300 |
| 1941..... | 4,228 | 1,408,880 | 106,052,400 | 97,208,900 | 69,484,700 |
| 1942..... | 4,145 | 1,356,940 | 119,591,400 | 109,822,200 | 43,052,500 |
| 1943..... | 3,938 | 1,311,620 | 127,329,200 | 117,339,100 | 35,376,200 |
| 1944..... | 3,815 | 1,306,000 | 141,365,400 | 133,677,400 | 34,438,400 |
| 1945..... | 3,757 | 1,216,625 | 153,103,120 | 140,613,962 | 35,155,414 |
| 1946..... | 3,761 | 1,302,132 | 173,166,459 | 159,718,040 | 56,800,937 |
| 1947..... | 3,845 | 1,445,915 | 210,375,571 | 192,410,043 | 91,372,197 |
| 1948..... | 4,058 | 1,628,339 | 258,411,736 | 235,008,368 | 137,642,327 |
| 1949..... | 4,495 | 1,819,606 | 316,362,504 | 285,000,934 | 186,218,022 |
| 1950..... | 4,984 | 2,126,823 | 405,834,976 | 361,924,778 | 263,735,838 |
| 1951..... | 5,398 | 2,463,898 | 504,714,580 | 457,402,124 | 299,755,775 |
| 1952..... | 5,925 | 2,853,241 | 662,408,869 | 597,374,117 | 415,062,315 |
| 1953..... | 6,578 | 3,255,422 | 854,232,007 | 767,571,092 | 573,973,529 |
| 1954..... | 7,227 | 3,598,790 | 1,033,179,042 | 931,407,456 | 681,970,336 |
| 1955..... | 7,806 | 4,032,220 | 1,267,427,045 | 1,135,164,876 | 863,042,049 |
| 1956..... | 8,350 | 4,502,210 | 1,529,201,927 | 1,366,258,073 | 1,049,188,549 |
| 1957..... | 8,735 | 4,897,689 | 1,788,768,332 | 1,589,190,585 | 1,257,319,328 |
| 1958..... | 9,030 | 5,209,912 | 2,034,865,575 | 1,812,017,273 | 1,379,723,727 |

¹ Data for 1935–44 on membership, assets, shares, and loans outstanding are partly estimated.Table 11.—*Federal credit unions: Assets and liabilities, Dec. 31, 1958, and Dec. 31, 1957*

| Assets and liabilities | Amount | | | Percentage distribution | |
|--|-----------------|-----------------|--------------------|-------------------------|---------------|
| | Dec. 31, 1958 | Dec. 31, 1957 | Change during year | Dec. 31, 1958 | Dec. 31, 1957 |
| Number of operating Federal credit unions..... | 9,030 | 8,735 | 295 | ----- | ----- |
| Total assets..... | \$2,034,865,575 | \$1,788,768,332 | \$246,097,243 | 100.0 | 100.0 |
| Loans to members..... | 1,379,723,727 | 1,257,319,328 | 122,404,399 | 67.8 | 70.3 |
| Cash..... | 154,257,791 | 135,115,485 | 19,142,306 | 7.6 | 7.5 |
| U.S. bonds..... | 94,897,483 | 90,921,596 | 3,975,887 | 4.7 | 5.1 |
| Savings and loan shares..... | 347,411,329 | 251,614,676 | 95,796,653 | 17.1 | 14.0 |
| Loans to other credit unions..... | 35,073,948 | 38,827,893 | -3,753,945 | 1.7 | 2.2 |
| Land and buildings..... | 6,084,555 | 4,587,837 | 1,496,718 | .3 | .3 |
| Other assets..... | 17,416,742 | 10,381,517 | 7,035,225 | .8 | .6 |
| Total liabilities..... | 2,034,865,575 | 1,788,768,332 | 246,097,243 | 100.0 | 100.0 |
| Notes payable..... | 37,481,165 | 41,281,715 | -3,800,550 | 1.8 | 2.3 |
| Accounts payable and other liabilities..... | 7,173,674 | 5,273,781 | 1,899,893 | .4 | .3 |
| Shares..... | 1,812,017,273 | 1,589,190,585 | 222,826,688 | 89.1 | 88.9 |
| Regular reserve..... | 75,810,826 | 62,344,129 | 13,466,697 | 3.7 | 3.5 |
| Special reserve for delinquent loans..... | 4,579,416 | 3,674,115 | 905,301 | .2 | .2 |
| Other reserves ¹ | 3,881,182 | 2,536,571 | 1,344,611 | .2 | .1 |
| Undivided earnings..... | 93,922,039 | 84,467,436 | 9,454,603 | 4.6 | 4.7 |

¹ Reserve for contingencies and special reserve for losses.



Public Health Service

Health of the Nation

Cooperative effort is the key to American health. Private practitioners, universities and medical schools, hospitals and research laboratories, voluntary organizations and foundations, civic and community groups, and official agencies of government—these and other groups contribute their combined skills and resources to the struggle for better health in the United States. During the past year this vast partnership continued to grow, both in size and in strength.

The result was progress on many fronts. Disease and disability are stubborn enemies and yield ground slowly. Moreover, the character and tempo of modern life often create new health problems, even as solutions are found for the old ones.

Action in behalf of health must rest on a solid base of public interest, understanding, and support. The record of the past year indicates heightened public interest and the pursuit of measures designed to illuminate and strengthen every segment of the health front.

The Federal Government, through its principal health agency—the Public Health Service—was an active partner in these enterprises. Appropriations for PHS programs increased. New programs were established, and a number were expanded. Renewed emphasis was given to the health problems related to the modern environment; health research continued to grow; and continued attention was given to the development and training of health manpower. The pages that follow describe in detail these developments and other significant actions of the past year.

HEALTH RECORD

The health of the American people remained at a high level during the past year. The general death rate for 1958¹ was 9.5 per 1,000

¹ All vital statistics are given for the calendar year.

population, slightly under the 1957 rate of 9.6. The rate has been below 10 per 1,000 population since 1948, reached its lowest level of 9.2 in 1954, and has varied between 9.2 and 9.6 since then.

The infant mortality rate for 1958 was 26.9 deaths per 1,000 live births, virtually unchanged from the 1957 rate of 26.3. The maternal mortality rate for 1958 was 3.5 per 10,000 live births, compared with 3.9 in 1957.

The average length of life for the entire population, based on mortality rates for 1957, was 69.3 years. The average life expectancy was 67.1 years for white males, 73.5 for white females, 60.3 for non-white males, and 65.2 for nonwhite females.

Chronic diseases continued to cause the majority of deaths in the United States. Together, diseases of the heart and blood vessels and cancer accounted for 70 percent of all deaths in 1958. The death rate for the major cardiovascular-renal diseases in 1958 was 524.0 per 100,000 population, and the cancer death rate was 145.6 per 100,000 population.

The mortality trend for accidents, with the exception of motor-vehicle accidents, has been downward since 1949. The death rate for motor-vehicle accidents remained at a high level. It was 22.3 per 100,000 in 1958, compared with 22.7 in 1957. For all other accidents, however, the rate continued to drop—from 33.2 per 100,000 in 1957 to 31.4 in 1958.

Deaths from most communicable diseases continued to decrease. The tuberculosis death rate was 7.0 per 100,000 population in 1958, compared with 7.8 in 1957. The principal diseases of childhood—scarlet fever and streptococcal sore throat, diphtheria, whooping cough, and measles—which caused about 4 deaths for every 100,000 youngsters in 1949, were responsible for only about 1 death per 100,000 in 1958.

BIRTHS, MARRIAGES, AND DIVORCES

An estimated 4,250,000 live births occurred in 1958, only 1.3 percent below the record high of 4,308,000 reached in 1957. The decline in the birth rate per 1,000 population, however, was somewhat larger, 3.2 percent. The birth rate dropped from 25.3 in 1957 to 24.5 in 1958. Since there were 9.5 deaths per 1,000 people in 1958, or a total of 1,647,000 deaths, the rate of natural increase came to 15.0 persons per 1,000—slightly lower than last year's rate of 15.7.

The estimate of marriages performed in 1958 was 1,445,000, or 4.7 percent less than the figure for 1957. The marriage rate was 8.3 per 1,000 population, compared with 8.9 in 1957.

The estimated number of divorces granted in 1958 was 380,000, less than 1 percent below the figure for 1957.

INFLUENZA AND POLIOMYELITIS

Although a recurrence of Asian influenza, which struck the United States in epidemic proportions in the fall and winter of 1957, was expected in this country in 1958, there were no reports of confirmed cases until February of 1959. Sporadic outbreaks of both Type A2 (Asian) and Type B influenza began to occur during that month, and continued to be reported for several months.

In 1958, the incidence of paralytic poliomyelitis was almost 50 percent higher than in 1957. This ended the steady downward trend in incidence since 1954. The total number of paralytic cases reported in 1958 was 3,697; in 1957, it was 2,499; in 1956, it was 7,911; and in 1955, the year the poliomyelitis vaccine first became available, it was 13,850. About 50 percent of the paralytic cases in 1958 occurred in children under 5 years of age, the group with the least amount of protection from the vaccine.

By the end of 1958, about 50 million people under 40 years of age had had three injections of poliomyelitis vaccine, and some had had a fourth injection. About 40 million people under 40, however, had had no vaccine at all. Therefore, the Public Health Service, in cooperation with the American Medical Association and the National Foundation, continued to promote vaccination programs.

Funds and Personnel

In 1959, there was a total of \$894.2 million available to the Public Health Service (see table 1, page 136). Of this amount, about \$755.8 million was in appropriations and authorizations. The balance was made up of reimbursements for services rendered to other agencies and in unobligated balances from previous years.

Grants to the States for health programs and for the construction of health facilities and sewage treatment plants amounted to 30 percent of the total funds obligated. Research, training, and construction grants to medical, dental, and research institutions represented 40 percent of the total. Thus, about 70 percent of the total amount available to the Public Health Service was allocated to agencies and institutions outside the Federal Government. The remainder supported the operation of Public Health Service hospitals, foreign and interstate quarantine, Indian health services, and other direct activities of the Service.

There were 25,050 full-time employees in the Public Health Service at the close of fiscal year 1959 (see table 2, page 138). This number included 1,564 members of the regular Commissioned Corps of the Service, 1,925 members of the Reserve Corps on active duty, 97 members of the Commissioned Reserve on temporary training duty, and

21,464 full-time Civil Service employees. The Service continued its extensive recruitment program for professional personnel. A wide variety of measures were employed to create interest in permanent careers in the Public Health Service.

National Library of Medicine

On June 12, 1959, ground was broken for a new library building at the National Institutes of Health. This event brought to fruition a forty-year effort to secure adequate quarters for the National Library of Medicine.

A number of new sources for the procurement of publications from marginal areas of the world were located during the year, and the acquisition of Russian materials continued to improve. At year's end the steadily expanding collection of the Library numbered 1,028,296 pieces.

INDEXING SERVICES

Work neared completion on mechanization of copy preparation for publication of the Library's monthly index. Arrangements were concluded for participation with the American Medical Association in the joint provision of a comprehensive indexing service for the world's current medical literature. Under the new arrangement, beginning in January 1960, the *Current List of Medical Literature* will become the *Index Medicus* with annual cumulations published by the American Medical Association from copy provided by the Library.

PUBLICATIONS PROGRAM

The Library added a new title to its list of publications when it undertook the preparation of *Film Reference Guide to Medicine and Allied Sciences*. An annual publication prepared under contract with the Interdepartmental Committee on Medical Training Aids, the 1959 edition lists 1,800 films of interest to the medical programs of one or more of the member agencies of the Committee, which includes Army, Navy, Air Force, Veterans' Administration, and the Public Health Service. Other major publications issued or in press at the close of the year included: *National Library of Medicine Catalog*; *Bibliography of Medical Reviews*; *Current List of Medical Literature*; *Guide to Russian Medical Literature*; *Bibliography of Space Medicine*; *Staphylococcal Infection*; *Psychopharmaca*; *Fungus Infections*; *Bibliography of Military Psychiatry*.

PROGRAM STATISTICS

During fiscal year 1959, the Library acquired 11,690 books, 68,532 serial pieces, and added 1,296 new serial titles. It purchased 828 old and rare items for its History of Medicine collections, cataloged 20,757

titles, and added 958 pictures and portraits to its art collection. There were 111,822 volumes circulated to users of the Library; 9,390 reference questions were answered; 326 bibliographies were prepared on special subjects; 21,272 main entries were published in the *National Library of Medicine Catalog*; 117,378 items were indexed and published in the *Current List of Medical Literature* from 1,633 journal titles. Almost 1.5 million pages of medical literature were microfilmed in response to 69,595 requests. An additional 1.5 million pages were microfilmed for preservation purposes.

Public Health Methods

The Division of Public Health Methods provides staff assistance to the Surgeon General, conducts studies on needs and resources which affect public health programs, and participates in cooperative projects with public and private agencies. The Division edits and publishes *Public Health Reports* and the Public Health Monograph series as a means of disseminating information about public health research, practice, and administration.

NATIONAL HEALTH SURVEY

The U.S. National Health Survey is designed to obtain health statistics needed by users in many fields, such as medicine, hospital administration, and health insurance. It is a continuing program of surveys which includes household-interview surveys, special surveys, and methodological studies. During the past year, two methodological reports were published and six reports based on household-interview data for the year 1957-58. Major attention was given to the development and pretesting of a standardized health examination to produce data which can be obtained in no other way—specifically, precise diagnostic information on certain chronic conditions and distributions of physical and physiological variables. Health examination pilot studies were conducted in Allen County, Indiana and Howard County, Iowa in preparation for the launching, in fiscal year 1960, of a series of examinations on a sample of the national population.

U.S. National Health Survey figures show that during the year July 1957-June 1958, illness and injury caused 3,370 million days of restricted activity among the civilian, noninstitutional population of the country. This amounted to about 20 days per person per year. Of the restricted activity days, about 1,310 million—or an average of 7.8 days per person—were bed disability days.

About 438 million acute illnesses involving either restricted activity or medical attention occurred during the same report year. Such illnesses average 2.6 for every person in the population.

During the same period, 46.9 million persons sustained injuries involving medical attention or restricted activity. This was an average of 27.9 persons injured per 100 persons in the population. The disability resulting from the injuries totaled 424 million days of restricted activity including 114 million days spent in bed.

STUDIES OF HEALTH RESOURCES

The Division provided the executive secretary and staff for the National Conference on Homemaker Services. Nearly 300 persons attended this two-day conference which was sponsored by 8 governmental agencies and 26 national voluntary organizations. Prior to the conference, the Division issued three publications on homemaker services—a directory of existing agencies, a statistical study of services, and a collection of descriptions of typical programs. The executive secretary and staff have the major responsibility for preparing and publishing the final report with the advice of an editorial committee chosen from the sponsors.

Another activity was the preparation of a chapter, "Health in Middle and Later Years of Life," for the forthcoming book, "Handbook of Social Gerontology." This handbook was developed for the Inter-University Training Project in Social Gerontology sponsored by the University of Michigan. Factual data from many sources on health status, resources, utilization, cost, and need for services for the aged were compiled and analyzed for use at various conferences and for program planning at both Federal and State levels.

For the past several years, the Division has maintained a "Clearinghouse" on sources of morbidity data. The six published listings are at present being coordinated and consolidated into a cumulative volume on morbidity statistics projects.

Division staff members are coordinating and editing a volume, "Guide to the Administration of Community Health Services," sponsored by the City Managers Association and the American Public Health Association. This volume, which consists of chapters written by some 28 different authorities in the field, will cover all phases of community health services.

The Surgeon General appointed a group of 22 national leaders in medicine, education, and public affairs as consultants to appraise existing data, plans, and proposals concerned with medical education and to recommend action which must be taken to achieve reasonable and acceptable goals in the next decade. The Division is providing the staff services for this consultant group whose report will be completed in the fall of 1959. Background information assembled for the Consultants has been prepared for publication in the Division's *Health Manpower Source Book* series. This publication shows current numbers, distribution, and educational facilities for physicians,

dentists, and nurses. Estimates of the future supply of personnel in these health professions are included.

Studies were also conducted by the Division staff in the broad area of health economics—medical care expenditures, health insurance, and economic costs of illness, for example.

The National Institutes of Health

In addition to conducting research in its own laboratories at Bethesda, Md., the National Institutes of Health supports research projects, training, and construction in institutions throughout the Nation. Its grants are awarded after careful review by non-Federal study sections composed of technical experts, and by advisory councils composed of leaders in science and public affairs.

In fiscal year 1959, Congress appropriated \$294.4 million for the Institutes' research and training programs and \$30 million for grants to finance the construction of research facilities. An unprecedented total of 9,166 research-project grants and 5,271 training grants and fellowships were awarded, totaling \$20 million (Table 3).

During the year, increased efforts were made to appraise the present programs and their impact on the Nation's total research and training effort. The first in a series of staff studies surveyed the research needs and NIH support in 20 selected medical schools. The study revealed trends toward increasingly productive research through such measures as stronger training programs, balanced research support, and attention to the broader needs of institutions.

To meet growing responsibilities in training and international health programs, three major positions were established on the NIH Director's staff—Deputy Director, Associate Director for Training, and Special Assistant on International Affairs.

Substantial progress was made in such large-scale collaborative operations as the search for better chemical agents to treat cancer and the evaluation of drugs for the treatment of mental illness. After several years of preparation, a collaborative study of 40,000 mothers and their babies was activated in the search for causes of cerebral palsy, mental retardation, and related disorders.

Cooperation among NIH scientists in various fields led to new basic knowledge of neurostructural bases of behavior. Clinical studies in progress are designed to evaluate promising new compounds for the dietary control of dental caries and for the treatment of high blood pressure.

Among the more important achievements of the year were discoveries pertaining to the cancer-virus relationship. The induction of leukemia in mice by means of a virus extracted from a mouse sar-

coma lent further stimulus to investigations of the possible viral origin of some human cancers.

In an effort to accelerate progress in the increasingly important field of physical biology, 126 leading scientists attended a four-week study program sponsored by NIH at Boulder, Colo.

The Center for Aging Research, now part of the Division of General Medical Sciences, established at Yeshiva University the second of a series of long-term programs to coordinate aging studies, and increased its support of research projects in gerontology.

The mounting volume of grant applications in certain fields resulted in the creation of seven additional grant review boards. Through grants, research was stimulated in environmental health, gastroenterology, cystic fibrosis, schizophrenia, and staphylococcus infection.

Clinical Center

During fiscal year 1959, action was taken to keep physicians apprised of the mission, methods, and diagnostic needs of the NIH clinical program. Maximum utilization of the Clinical Center's 516 research beds was continued, with an average daily census of approximately 400 patients.

As a result of the national expansion of basic medical research during the past decade, the volume of clinical research is increasing rapidly throughout the country. Each year more hospitals become involved in evaluating the new concepts, devices, and compounds derived from laboratory study. Thus, the Clinical Center is assuming greater importance as a major national resource to other hospitals for knowledge concerning the techniques, problems, and safeguards involved in the large-scale study of sick people.

To this end, intensified efforts were directed toward making available to other hospitals knowledge which the Clinical Center has developed during its six years of existence.

Management of the NIH Visitor Program was assigned to the Clinical Center on January 1, 1958. Approximately 9,000 professional and pre-professional visitors were registered during the year, and individually planned schedules were arranged for more than 5,000 of these. In addition to regular annual lectures and symposia, a number of closed-circuit TV programs for the interchange of scientific knowledge were conducted.

Division of Biologics Standards

The Division is responsible for administering the control of biological products in interstate and foreign commerce. This regulatory

function is carried out through issuance of establishment and product licenses, following a determination that prescribed standards of safety, purity, and potency have been met. At the end of the year, 176 establishment licenses and 1,220 product licenses were in effect, the latter covering 275 specific products.

Tests continue to be performed at the rate of approximately 3,400 a year, ranging from relatively simple sterility tests to potency determinations involving both animals and tissue culture. In addition, approximately 4,000 vials of physical reference standards are prepared and distributed annually to manufacturers and to laboratories engaged in biological standardization.

An integral part of the Division's control activities is its research program, essential for the continuous improvement of licensed products and the licensing of new ones as they develop. During the year, Division scientists reported: the determination of ultraviolet inactivation rates of viruses as a potential aid to their identification; the discovery of a blood serum that can be used to test for the rare blood group Cellano; evidence that the biological material which experimentally transforms fibroma virus into myxoma virus is nucleic acid; a method using chicks instead of monkeys for measuring potency of killed polio vaccine; and determination of the comparative virulence for monkeys of the oral polio vaccines under study in field trials.

Division of General Medical Sciences

The Division of General Medical Sciences was created on July 16, 1958, to strengthen support of biomedical research and research training. A new organizational framework was thus provided for the conduct and continued development of NIH extramural programs in the general preclinical and clinical sciences, public and environmental health, medical care, and aging. At the same time, the NIH Center for Aging Research was transferred from the National Heart Institute to the new Division.

As the fiscal year closed, the Division was supporting more than 1,000 research projects at medical schools and other private research institutions. These projects are seeking basic information about biology and medicine under the following program headings: Chemistry of Life Processes, Fundamental Genetics and Human Development, Research in Public Health and Medical Care, Fundamental Clinical Investigations, Environmental Factors in Health and Disease, and Additional Fundamental Biomedical Research.

Program benefits are illustrated in several areas. In the Chemistry of Life Processes, for example, scientists are probing deeper into the origins of life. Primitive proteins have been made with amino acids

in experiments following the steps that probably led to formation of the first living substances. This work opens the way for further study of the processes by which living matter is formed, and suggests the possibility of producing synthetic proteins for dietary supplements.

In another field, Human Development, investigators are studying the processes by which antigens, antibodies, and nutrients are passed from the mother through the placenta to the fetus. This work is important in understanding congenital abnormalities. In related work, a grantee has chemically isolated relaxin, a hormone that assists women during childbirth.

The Division administers research grants in the area of environmental health, which includes accident prevention, air and water pollution, food toxicology, and occupational health. This work has become increasingly important in man's complex and rapidly changing environment with its many implications in health and disease.

One of the first tasks is to measure the extent to which man is actually endangered. Studies in air pollution, for example, have revealed that certain air pollutants can limit the reproduction rate of mice. In food toxicology, scientists have found that combinations of certain commercial insecticides on food products can pose serious hazards, not only for consumers but also for workers in food processing.

Programs of research training and fellowships in the sciences basic to medicine and biology underwent a marked growth during the year. In accordance with the original plan set forth by Congress, the program of Senior Research Fellowships increased an additional \$1 million to a total 1960 level of \$3 million supporting advanced training for 165 scientists over a 5-year period.

The Division's research training program has expanded during the past year from 88 projects to 176, providing training for nearly 1,000 scientists. The number of different training programs has grown from one, in Epidemiology and Biometry, to a total of nine, including Biochemistry, Genetics, Pathology, Dermatology, Pharmacology, Physiology, the Anatomical Sciences, and Experimental Embryology and Development.

CENTER FOR AGING RESEARCH

The NIH Center for Aging Research coordinates PHS research and training activities in the field of aging. During the year, grants for research on aging in the Nation's research institutions increased from 274 to 404.

The aging programs include nearly all disciplines and areas of interest, from studies of body tissues to research in nursing. In studies of the total human organism, it has been found that many health problems of the aged have an early origin, and that preparation for old age should therefore begin in youth. Other studies have shown

that a factor resembling the juvenile hormone, known to control the growth of insects, can appear in the human being. Still other findings pertain to the relation between age and reproduction, particularly among lower forms of life.

Division of Research Grants

The continued growth of NIH programs necessitated a major reorganization within the Division of Research Grants. Responsibility for administering the research and training grants program in areas basic to the biological and medical sciences was transferred from DRG to the newly created Division of General Medical Sciences. The realignment permitted DRG to strengthen and broaden its central services in extramural affairs to all NIH research programs.

Specifically, the reorganization enabled DRG to increase the number of study sections to process the increasing volume of research grant applications without sacrificing the traditional high quality of application review. The procedure for fellowship application review was changed to provide an expanded and more detailed appraisal of fellowship applications.

In 1956 the Congress authorized a three-year program of grants to aid in the construction of health research facilities. The program has awarded \$90 million in grants in its three years of operation. In August 1958 the Congress extended the program an additional three years.

The program to promote the international exchange of scientific information and techniques through postdoctoral fellowship awards to promising scientists proved eminently successful during the year and was extended to include 30 countries.

Central Services

The Division of Business Operations provides central business management and plant safety services for the National Institutes of Health. The speed and accuracy of payroll and financial reporting activities were increased by transfer to an electronic computer. A simplified grants-payment system was installed, permitting issuance of a single monthly check to each grantee institution, regardless of the number of individual grants in effect. Further studies were under way at the year's end to develop similar improvements in such areas as large-scale storage and retrieval of research-grant information.

The Division of Research Services supports the NIH research programs by providing a wide range of technical, scientific, and

other skills. In 1959, the Division helped plan, build and maintain new research facilities on the grounds of NIH. Construction was begun, for example, on a new laboratory building for the National Institute of Dental Research; a research greenhouse was completed; and progress was made in developing special facilities for the care of germ-free animals.

A study was undertaken of factors affecting microbial content in patient-care and operating areas. The number of laboratory animals was increased, and several new species were added. Computer technology was applied increasingly to medical research problems.

Institute of Allergy and Infectious Diseases

One of the major areas of emphasis in infectious disease research continues to be the common respiratory infections, still the most prevalent illnesses. During the past year, virologists of this Institute defined two new agents among the para-influenza viruses and found them related to a large proportion of childhood respiratory illnesses ranging from mild febrile symptoms to croup and pneumonia. Co-operative studies with the Department of Agriculture provided evidence for a relationship between the para-influenza viruses and diseases in cattle, particularly shipping fever.

With the development of new virological techniques, Institute investigators studied for the first time the natural history of a mouse tumor (polyoma) virus. The distinction between this and other viruses was rigorously defined, and its presence in enormous amounts was demonstrated in infected mice.

The recent disclosure by the Institute's Rocky Mountain Laboratory of an alarming increase in the number of dairy herds infected with the rickettsia of Q fever implies a growing reservoir of human disease. Future studies are contemplated in several Western States, especially with regard to associated human infection.

In the field of immunology, laboratory scientists studying immune mechanisms demonstrated the precise conditions necessary for the maintenance of skin grafts among inbred guinea pigs. Other scientists from the same laboratory worked out a new technique for studying anaphylactic reactions.

Institute investigators in the Northwest, almost coincident with a California report of a human death due to bat rabies, revealed an instance of rabies transmission from bats to mice by biting.

The renewed emphasis on tropical medicine led to an intensified investigation of the arthropod-borne viruses. In one such study, field scientists of this Institute collaborated with research workers in Panama to elucidate many of the factors involved in an outbreak of eastern equine encephalitis among horses.

GRANT-SUPPORTED RESEARCH

Studies by an Institute grantee at the University of Miami resulted in an announcement of what may be the first successful systemic treatment of the superficial fungus infections in man. Response to oral therapy with the antibiotic griseofulvin was uniformly favorable, and infections of many years' duration seemed to respond readily.

Grantees at the University of Illinois obtained promising results in long-term clinical studies of the broad spectrum antibiotics. Oral administration of tetracycline has sharply reduced the number and duration of attacks of bronchitis and bronchiectasis.

At the Alabama Polytechnic Institute, a grantee reported the first systemic insecticide capable of eliminating certain disease-carrying parasites in domestic animals. The compound, DOW-ET-57, when administered in the food of cattle, circulates in body fluids and destroys common cattle grubs.

Long-term studies by grantees at Maimonides Hospital, New York, have resulted in findings that discredit the long-held view that candidiasis, a sometimes fatal fungus infection, may be transmitted by airborne means. As a result, the investigators suggest that spread of the disease may be prevented when infants are segregated within the general nursery and handled with strict aseptic techniques.

Other grantees studying fatalities associated with Asian influenza report that the influenza pandemic of 1957-58 was the first in which staphylococci played the dominant role almost universally in the complicating pneumonias. The fatal cases of staphylococcal pneumonia observed in these studies were generally marked by severe and rapidly progressing illness, less accurate diagnosis, and relatively ineffective antibiotic treatment.

Institute of Arthritis and Metabolic Diseases

One of the most significant and striking accomplishments of the year was the development, by Institute scientists, of a new synthetic pain-killing drug that is 10 times more powerful than morphine and 50 times more powerful than codeine. The new analgesic, which has been named phenazocine, was synthesized from simple coal-tar derivatives and gives promise of freeing this country from its present dependence on morphine-producing areas of the world.

Experience with phenazocine in over four thousand patients, at NIH and in other institutions, has confirmed its high pain-killing activity. More importantly, the drug is less addicting than morphine, although longer-term studies will be needed to determine exactly its addiction liability. In addition to high potency, the new analgesic causes less respiratory depression than morphine, has low toxicity, and gives

excellent results against certain forms of severe pain which morphine does not relieve.

An important phase of arthritis research at the Institute continues to be the clinical and metabolic evaluation of new antirheumatic steroid drugs. In recent years, Institute scientists and grantees have tested an increasing number of synthetic steroids developed by the pharmaceutical industry. One is dexamethasone, an antirheumatic drug that is found to be several times as potent as its chemical relative, prednisone. The first long-term trials of dexamethasone at the Institute have shown that the drug can relieve the painful symptoms of rheumatoid arthritis in patients who received little or no benefit from other steroids. Since it is not completely free from side effects, however, it must be used with the same caution employed with the older drugs.

The Institute is collaborating with the American Rheumatism Association and the Arthritis and Rheumatism Foundation in organizing a chain of arthritis clinics throughout the country to evaluate new drugs like dexamethasone. The continuing results of this program, expected to operate over several years, will provide reliable information about the relative merits and limitations of both old and new antirheumatic agents.

An improved treatment for gout has derived from basic studies of the metabolism of zoxazolamine, a drug that has been in use for several years as a muscle relaxant. At Mount Sinai and Goldwater Memorial Hospitals, New York, Institute grantees studying the breakdown of the drug in the body noticed that it also promoted the rapid excretion of uric acid. The drug was then tested in gout patients (since a characteristic of their diseases is the overproduction of uric acid), and it proved to be a more potent uricosuric agent than any others available. Another such drug, sulfinpyrazone, has also been clinically studied at the Institute and appears to be equally potent.

Basic research in rheumatic disease has highlighted the possibility that rheumatoid arthritis may be the result of an immune reaction to an as yet unidentified substance. This possibility is strengthened by the fact that the rheumatoid factor, which is present in the blood of arthritic patients, is apparently a gamma globulin, a type of blood protein known to contain antibodies.

In diabetes research, one of the most promising developments has been the use of the small-dose cortisone test for predicting diabetes susceptibility in relatives of known diabetics. An initial screening of the test, developed by grantees at the University of Michigan Medical School, indicates that it will provide an extremely reliable index of "pre-diabetes." A 5-year follow-up is now planned.

Diabetes research continues to be influenced by the new oral anti-

diabetic drugs, which have replaced insulin injections in one-third of the diabetics in the United States. The first of the new drugs was tolbutamide (Orinase), which became available in June 1957 after extensive trial by Institute grantees and other physicians. Two others, chlorpropamide (Diabinese) and phenformin (DBI), have also come into use. How these drugs act to lower blood sugar is not fully understood, but most evidence indicates their principal action to be stimulation of the beta cells of the pancreas to produce more insulin.

The Institute has continued to expand activities in new research areas—gastroenterology and physical biology. In gastroenterology—the medical specialty dealing with such disorders as peptic ulcer and ulcerative colitis—grantees at Cornell Medical Center and New York Hospital have developed a radio “pill” that broadcasts information about pressure changes inside the intestinal tract. Grantees at Northwestern University Medical School have developed a technique for taking motion pictures of fluoroscopic examinations.

Further developments in the field of physical biology—the research area utilizing the principles and methods of the physicist in studies of biology—have been stimulated by more than 80 research grants and nine training grants awarded by the Institute. Notable progress has been made in such studies as the biological effects of radiation, energy transfer in photosynthesis, and coding and information theory.

Cancer Institute

Among the major research accomplishments reported by scientists and grantees of the National Cancer Institute were results of studies dealing with viruses as cancer-causing agents, cytologic tests as an aid in the detection of malignancy, and chemotherapy—the treatment of cancer with drugs.

Virology assumed an increasingly important role in cancer research. A cancer virus was discovered in mice, as was a technique for preventing other animal virus tumors by vaccination. If further effort along these lines reveals that some human tumors result from viruses, it may be possible to develop vaccines against them.

Exfoliative cytology, the examination of cells that collect in body fluids, is now a well-recognized method for detecting uterine cancer prior to the appearance of symptoms and at a time when adequate treatment nearly always results in cure. Efforts to detect other forms of cancer by similar means have been encouraging and are being pursued. The Institute, moreover, has initiated a program to accumulate basic information that may facilitate the evolution of one or more generalized tests for cancer. A number of contracts have been signed providing for biochemical analyses of blood from both normal and

cancerous persons. This program is stimulating renewed scientific interest in the whole area of cancer diagnosis.

The broad program of the Cancer Chemotherapy National Service Center has attained full operation. Scientists and physicians throughout the United States and abroad are striving to find new and better drugs and to perfect techniques for using anticancer agents. Of the thousands of drugs screened, more than 100 were being evaluated in studies involving nearly 5,000 patients. Heartening results were reported, adding support to the belief that powerful drugs for the lasting control of cancer will be developed.

The progress in these three areas was made possible in part by the steady advance of knowledge concerning the biochemistry of cancer, the relationships between tumor and host, the mechanism of carcinogenesis, and other fundamental aspects of the cancer problem.

INSTITUTE RESEARCH

Scientists of the National Cancer Institute and the Division of Biologics Standards have continued their collaborative investigation of the agent that causes multiple tumors in mice, rats, and hamsters. In one study they demonstrated that the agent, polyoma virus, is a single organism rather than a group. They also reported that the development of such tumors in hamsters can be prevented with injections of a "neutral" mixture containing the virus and specific antibodies against it. Ninety-seven percent of hamsters so treated failed to develop tumors during a six-month period, whereas two-thirds of those that received the virus alone died of tumors within five months.

In another virus study, an Institute scientist extracted from the experimental mouse tumor, sarcoma 37, a virus that produces leukemia when inoculated into mice. The disease appears within 10 weeks in all mice injected on the first day of life. In contrast to other leukemia-producing viruses that affect mice, this agent elicits the disease in several different strains, is active in adults as well as newborns, and produces a disease indistinguishable from spontaneous mouse leukemia. Research is under way to determine the relationship, if any, between this agent and other mouse leukemia viruses.

An epidemiological study of lung cancer showed that the risk of this disease is as excessive in women who smoke cigarettes as in men smokers. This study, which confirmed the work of other investigators, suggests that there is no factor peculiar to men which contributes to the development of cancer of the lung.

Epidemiological research also produced valuable information on the declining rate of stomach cancer in the United States. Institute scientists reported: (1) the trend is observed in some foreign countries; (2) stomach cancer occurs more frequently in members of the lower socio-economic groups, but does not seem to be associated with

occupation; (3) there is no significant variation in the stomach cancer rate for urban and rural residents; and (4) stomach cancer rates are higher in the northern United States, paralleling the international distribution of this malignancy. The investigators suggest that future studies in this area might profitably be concerned with the role of heredity and diet in the etiology of gastric cancer.

Institute scientists reported continued progress in their study of the significance of tumor cells in the circulating peripheral blood. Specimens of blood from 100 diagnosed cancer patients and 200 presumably well persons were examined cytologically. Malignant cells were detected in 39 percent of the cancer patients, and the findings were considered suspicious in another 10 percent. Among the well persons, on the other hand, cells considered to be cytologically malignant were found in only one person, or 0.5 percent of the control group. The scientists suggested that this technique may help in establishing a primary diagnosis and in postoperative followup.

Staff scientists reported their observations of the use of the drug methotrexate in 27 patients with choriocarcinoma, a rare, highly malignant uterine tumor. All but five of the women were gravely ill on admission to the Clinical Center. Most of them showed spread of the disease to the lungs, and a few presented evidence of central nervous system involvement. Complete remissions, with no evidence of recurrence for 8 to 29 months, were observed in 5 patients. Eleven patients showed remission with persistent manifestations of disease, and the remaining 11 died.

GRANT-SUPPORTED RESEARCH

An Institute grantee at the Sloan-Kettering Institute for Cancer Research published a report on the effect of combustion temperature of tobacco on the production of suspected carcinogenic agents. Materials obtained by burning tobacco at temperatures of 880° C. to 560° C. were administered to mice and rabbits. The most highly carcinogenic material studied was that formed at 880° C., the approximate burning temperature of cigarettes. Tobacco burned at decreased temperatures was progressively less carcinogenic, and no activity was obtained from the 560° C. material. The author suggested that lowering the burning temperature of cigarettes to a range of 700° C. may provide a lead to a solution of the tobacco-cancer problem.

Another grantee, at Columbia University College of Physicians and Surgeons, reported the results of a study leading him to suggest that tobacco smoke and air pollutants may act in combination to produce lung cancer, thus accounting for the higher incidence among urban, as compared with rural, residents. In a two-year study, the backs of mice were treated with various combinations of tobacco tar and known carcinogens—croton oil and the air pollutant benzpyrene. The ani-

mals were observed for the development of benign and malignant tumors. All procedures eventually yielded benign skin papillomas that sometimes progressed to malignancy. However, the combination of tobacco tar and benzpyrene produced a greater percentage of malignant carcinomas than did any other treatment. The problem of lung cancer and the various environmental factors that appear to be associated with it are being studied by a number of grantees.

A team of Institute grantees at the University of Wisconsin School of Medicine reported the results of clinical trials with 5-fluorouracil (5-FU), an anticancer agent first described in 1957. Of 35 patients who received an adequate therapeutic dose of 5-FU, 9 showed regression of tumors of the breast, liver, rectum, and other sites. The majority of the treated patients reported subjective improvement and lessening of pain. This study is being continued as part of the national cooperative program of chemotherapy research.

In another of the cooperative clinical studies, a grantee at the Mayo Clinic undertook to evaluate a derivative of testosterone propionate in the treatment of advanced breast cancer. Previously, testosterone propionate had been the most effective of the male sex hormones. The derivative, however, produced a significantly higher percentage of temporary regressions. In addition, the new drugs appeared to produce less masculinizing effects than did testosterone propionate, suggesting that therapeutic value may not be directly correlated with male hormonal activity.

Institute of Dental Research

The program of the Dental Institute is concerned with research investigations and training in matters relating to the cause, prevention, diagnosis, and treatment of disease and abnormalities of the oral cavity and its associated structures. The continuing high prevalence of oral diseases, particularly dental caries and periodontal disease, and the lack of basic knowledge concerning their cause, gave impetus to broad-spectrum laboratory and clinical studies in 1959.

Investigations using the germ-free technique in the testing of pathological effects of microorganisms on oral soft tissue have demonstrated that tartar-like deposits can occur on the molar teeth of germ-free animals. This challenges the recognized concept that bacteria cause, in some way, the formation of tartar, a suspected causal factor in periodontal disease.

In studies of nutrition and oral disease, certain dibasic phosphates have proved effective as dietary additions for the control of experimental dental caries. A clearer understanding of this relationship

and its possible application to dental public health practices is being explored in large-scale cooperative clinical tests.

In the field of epidemiology, group population studies of periodontal disease continues in many parts of the world, including most recently Ethiopia, Peru, and Ecuador. Preliminary findings point to a periodontal disease profile somewhat different from that seen in this country. The differences are being fully evaluated from an environmental, nutritional, and biochemical standpoint.

Studies with experimental animals have produced data suggesting that dental caries is closely related to the establishment of a specific bacterial flora. It might therefore be considered a transmissible disease under certain conditions.

Clinical studies of dental caries continue to advance knowledge of the types of microorganisms involved, the chemical aspects of the disease process, and the relationship of caries to the body as a whole. Other study areas include biologic effects of high-speed instrumentation procedures, periodontal disease, psychosomatic factors in oral disease, and oral and facial abnormalities.

The Institute increased its support of dental research projects in institutions in this country and abroad. Further extension of awards in the area of training continued in an effort to meet the urgent need for scientific manpower oriented in dentistry.

Heart Institute

Fundamental and clinical research, at the Heart Institute and in the institutions it aids through grants, continued to reveal facts essential to the understanding and control of cardiovascular disease. Programs aimed at increasing the number and quality of skilled investigators, teachers, and physicians were initiated. The application of existing knowledge was expanded in many areas.

Atherosclerosis still receives a major share of Heart Institute efforts. In this disease, fatty materials accumulate in the walls of blood vessels and narrow them. Complete obstruction of a vessel frequently results in a blood clot. When atherosclerosis obstructs blood vessels supplying the heart, it is responsible for coronary occlusion, or heart attack. Obstruction of blood vessels supplying the brain leads to strokes. Because fatty deposits are primary to these conditions, the Heart Institute is studying fats in the body, including the processes by which they enter and leave the blood.

A new technique now being applied to this problem is vapor phase chromatography. Heart Institute laboratories have made substantial contributions to instrumentation and methodology in this field. The

technique permits minute amounts of chemical substances to be separated and their components to be identified and measured. Thus fatty components of blood and atherosclerotic lesions are being individually examined.

The effect of various diets on blood cholesterol are a continuing interest. Attempts, as yet unsuccessful, have been made to diminish the cholesterol-elevating properties of the fatty acids in milk. In other studies the purported beneficial effects of certain margarines are being evaluated.

In the field of hypertension, intensive efforts are being made to develop and clarify the role of drugs for controlling the blood pressure. Certain derivatives of reserpine, the active component of Indian snakeroot, can lower blood pressure as does reserpine, but without producing tranquilization. Institute scientists have found that these derivatives deplete peripheral nerve endings of their supply of norepinephrine, the transmitter substance for blood vessel constriction, while leaving relatively unchanged the concentrations of transmitter substances in the brain. This indicates that the effects of reserpine on blood pressure are due to action at peripheral vascular sites and are unrelated to the tranquilizing activity in the central nervous system.

A striking example of a therapeutic advance derived from basic studies arose during the year in the treatment of hypertension. Biochemical research undertaken several years ago was aimed at clarifying the mechanisms by which certain physiologically active substances are produced and destroyed in the body. Thus the chemical pathways by which serotonin and epinephrine are produced and metabolized were defined. Heart Institute workers showed that an enzyme known as monoamine oxidase plays a central role in the destruction of these substances. It was also observed that chemicals with ability to inhibit the enzyme markedly lower the standing blood pressure. Trial of a highly active monoamine oxidase inhibitor in Clinical Center patients has indicated that unless unpredictable side effects develop, the drug should prove valuable in the treatment of severe hypertension.

In the past few years, as more and more congenital and acquired heart defects have become amenable to surgical correction, various methods of catheterizing the chambers on the left side of the heart have been developed. Left heart catheterization is frequently essential to precise diagnosis and evaluation of patients to determine the advisability of surgery. In right heart catheterization (for which a Nobel prize was awarded in 1956) a catheter is simply introduced into a vein and passed directly into the right heart chambers. But easy access to the left heart has not been available. The safest ap-

proach hitherto in use—puncture of the windpipe through a bronchoscope—entails considerable discomfort for the patient, and other procedures involving puncture of the heart wall are not without hazard. During the past year a new and promising procedure was developed in the Heart Institute's Clinic of Surgery. First a right heart catheterization of the usual type is made, and then a needle is passed through the catheter and through the thin partition separating the right and left auricle to reach the left side of the heart. The procedure is performed without discomfort to the patient and appears to carry even less hazard than the bronchoscopic approach.

GRANT-SUPPORTED RESEARCH

Data from a number of studies have indicated that substitution of vegetable oils for most of the animal fats in human diets reduces the serum cholesterol level. Dietary regimens based on these findings, in which the substitution is made essentially as medication, are being evaluated. Also under investigation are the effects of varying the protein-fat ratio, types of protein ingested, caloric balance, and intake of certain vitamins.

Research investigators at several institutions are exploring the possibility of augmenting the body's clot-dissolving mechanism as an approach to disorders in which blood clots obstruct the circulation. Considerable evidence indicates that the normal balance of coagulation and dissolution is upset in blood-clotting diseases. Ways of enhancing the dissolving mechanism by use of plasminogen, plasmin, streptokinase, or other activating enzymes are being investigated. Studies in animals have shown promising results, and limited trials in human patients have been encouraging. Further clinical studies with more potent and more purified agents are in progress.

A valuable diagnostic advance during the year is a new technique for visualizing the coronary arteries by injecting a contrast substance into the aorta during induced arrest and blockage of the ascending aorta. The method, proven safe and effective in animals, is being used clinically.

At Mount Sinai Hospital in New York, animals studies have shown that X-rays applied to the heart in successive, small doses raise survival rates following experimental coronary occlusion, and suggest that cardiac irradiation may increase the supply of blood to the heart.

A new technique for experimental production of inborn cardiac defects was reported by a grantee at Northwestern University Medical School. Congenital heart malformations were produced in rats by exposing their mothers to an atmosphere of increased carbon dioxide concentration during an early stage of pregnancy. The findings suggest that altered blood gas levels in pregnancy may lead to similar defects in humans.

Institute of Mental Health

The past year witnessed a sizable expansion of the Institute's support of mental health research and training. Broad programs of research were supported in a number of critical areas. Over \$4 million was expended for support of 180 projects in the field of psychopharmacology. A total of 93 mental health project grants, amounting to over \$2¾ million, supported pilot studies and demonstrations designed to develop new methods of care, treatment, and rehabilitation of the mentally ill. There was a substantial increase in the number of investigations on problems of schizophrenia, alcoholism, and mental retardation.

A large number of studies continued to be concerned with such basic problems as the biology and biochemistry of mental illness, the role of psychological and social factors in normal and abnormal behavior, child development, the epidemiology of mental illness, juvenile delinquency, aging, and mental retardation. Investigations were supported in almost all the biological, psychological, and social sciences relevant to mental illness.

Among the more noteworthy advances during the past year has been the emergence of new pharmacological agents potentially useful in the treatment of depression and the discovery of new psychosis-producing drugs which should prove valuable in biochemical research on the function of the brain.

BASIC RESEARCH

In the Institute's basic research program, scientists in several major disciplines have been working on key problems, ranging from mechanisms which regulate hormone production, genetic transfer, and energy release, to the effect of community organization and attitudes on mental health and disease.

Research on the limbic system (the so-called primitive forebrain) has aided in identifying brain loci responsible for activity vital to preservation of the species and of the individual. A series of experiments on poisons affecting different regions of the brain has led to knowledge with implications in brain damage associated with chronic alcoholism. The Addiction Research Center has been studying biochemical factors in drug addiction, and has been evaluating drugs that modify mental processes and behavior.

The Institute's multidisciplinary program of research on biological factors in schizophrenia moved into full operation during fiscal year 1959. This program has been characterized by careful attention to scientific design and to sources of false-positive errors common to such research. Many of the concepts underlying these controlled studies are becoming widely accepted by other institutions.

CLINICAL INVESTIGATIONS

The opening of the Clinical Neuropharmacology Research Center, a collaborative research program with Saint Elizabeths Hospital, marked the beginning of a broad series of studies on the impact of drugs on mental illness. It augments a major interdisciplinary program of studies on the biological aspects of behavior.

Another area of intensive interest involved studies of the psychological and social forces which influence behavior and personality development. These include expanded activities in the field of normal child development; the inception of a program designed to elucidate the psychological basis for successful adaptation and creativity; and studies of the dynamics of family relationships. The program for the study of hyperaggressive children progressed to the point where it was possible to discharge the patients to treatment in a school setting.

COMMUNITY SERVICES

Probably the most far-reaching development in community mental health during the past few years has been the enactment of State legislation providing for continuing State grants-in-aid to localities. There has been rapid and extensive expansion of local services. All States now provide mental health consultation to nonpsychiatric agencies and groups. Several localities have established experimental programs to handle psychiatric emergencies more effectively and to develop facilities which will obviate the need for long-term hospitalization. The number of general hospitals accepting psychiatric patients rose from 43 in 1939 to almost 1,000 in 1958.

Demonstrations and studies designed to improve the care, treatment and rehabilitation of the mentally ill increased considerably during the past year. By the end of the year, 102 of these projects had been approved and were being supported.

More attention was given to consultation activities in such important mental health areas as school mental health, alcoholism, and mental retardation. Greater use was made of Technical Assistance Projects, through which States and localities are assisted in developing new approaches to mental health problems.

TRAINING

Substantially increased funds for mental health training enabled the Institute to expand and inaugurate several programs. Support was extended for training biological and social scientists who wish to prepare for research careers in mental health, and increases were made in the programs designed to train personnel for research in psychiatry, psychology, and social work. A new program of support in the basic sciences of human behavior at the undergraduate medical school level, announced in August 1958, acquaints the future physi-

cian with knowledge about the interrelations among social, psychological, and biological factors in health and disease.

The general practitioner training program, initiated with a special Congressional allocation of \$1,300,000, is expanding the Nation's psychiatric resources in two ways. It supports psychiatric residency training for practicing physicians who wish to become psychiatrists, and it enables medical schools, hospitals, clinics, and professional societies to offer postgraduate courses and seminars in psychiatry for physicians who are not specializing in this field.

BIOMETRICS

Important research studies on the epidemiology of mental illness were completed, including one on admissions to 11 State mental hospital systems. The first national summary of characteristics of outpatient clinic patients was completed, and historical material showing trends in mental hospitalization for the period 1939 to 1955 was compiled from extensive data. Several field studies on clinic and hospital populations in Maryland were initiated, and the Model Reporting Area was expanded so that it now includes 21 States.

Institute of Neurological Diseases and Blindness

Neurological research at the present time appears to offer outstanding opportunities at the extremes of the life cycle—infancy and old age. Among the disorders of infancy and childhood are cerebral palsy, mental retardation, congenital malformations, muscular dystrophy, and epilepsy. In later life, Parkinson's disease and cerebrovascular diseases occur. Disorders of sight, speech, and hearing are pronounced both in childhood and old age.

During the past year, artificial induction of seizures in epileptic patients has made it possible to locate more accurately the area of the brain involved. This has increased the accuracy of surgical removal of epileptic foci from which the seizures originate. In the chemical control of seizures, it has become clear that hormonal factors may play a part in influencing seizure threshold and susceptibility to convulsions.

Investigators are encouraged by research findings relating to the biochemistry of multiple sclerosis. Synthesis of sphingosine, previously reported, has been followed by discovery of a biological mechanism that yields a precursor of sphingosine. More has been learned about butylcholinesterase, an enzyme related to demyelination. Inhibitors of this enzyme are reported to cause loss of myelin in fowl.

Among the most difficult neurological problems have been the disorders of muscle. It is known that in dystrophic muscle the protein content is abnormal. The distribution of this protein is being studied

by means of fluorescent-labelled elements, radioactive tracers, and the development of specific antibodies which carry a dye directly to the protein molecules under investigation. Through such studies, it will be possible to distinguish the actual abnormal molecules in the diseased muscle, and perhaps to find ways to modify them.

Major advances have gradually been made in knowledge of the basic structure of the ear and of the pathways over which sound is conducted to the central nervous system. Through electrophysiological techniques, the passage of a sound impulse can be traced from the eardrum to the nerve receptor organs in the internal ear, and then to the area of the brain where the sound is received and interpreted. A new approach employs animals trained to respond to a sound with a highly organized pattern—one designed to test the animal's ability to recognize pitch, loudness, quality, or location of the source. In these animals, the deficit resulting from surgical removal of specific areas of the brain can be determined.

The most common causes of blindness are cataract and glaucoma, and the incidence of these disorders is increasing with the longevity of the population. At present, there is no medical means of treating cataracts. Surgical removal of the lens, however, has been greatly improved. The most recent advance has been the discovery that the supporting ligaments of the lens can be weakened or dissolved by an enzyme, alpha-chymotrypsin. Thus the lens can be removed without tearing the connecting tissues.

A new method of sealing retinal breaks has been devised, utilizing an intense light which produces a burn at its point of focus. Thus the retina can be sufficiently scarred to seal it to the underlying choroid.

GRANT-SUPPORTED RESEARCH

The most recent development in the Institute's total program has been the creation of the collaborative research area, designed to co-ordinate studies that would be difficult to carry on within a single institution. The largest such program is the collaborative project for the study of perinatal pathology, officially begun in January. This project is of fundamental importance in relation to cerebral palsy, mental retardation, and congenital forms of vision and hearing loss. It is also concerned with the normal processes of conception, pregnancy, delivery, and growth of the newborn child. Many of the methods were carefully pretested during the year, and collection of data in accordance with this protocol is now under way.

Cooperative projects continue in cerebrovascular diseases. Several institutions are studying aneurysms—the dangerous ballooning of blood vessel walls—and their correction by surgery before fatal hemorrhage. Another project explores the effects of anticoagulant

drugs on several hundred patients. A clinical study of the narrowing of brain arteries of various sizes was completed.

Bureau of Medical Services

The Bureau of Medical Services operates hospitals and outpatient clinics, foreign quarantine activities, and the health program for American Indians and Alaska Natives. It aids in construction of community hospitals and health facilities and in the development of the Nation's dental and nursing resources.

Research is carried on in hospital design and management, epidemiology and treatment of tuberculosis and other infectious diseases common among American Indians and Alaska Natives, control of yellow fever and the mosquitoes that transmit it, measurement of dental malocclusion, and many phases of nursing practice. National, regional, and State studies are made of the present and future supply and demand for dentists and nurses. The PHS hospitals conduct clinical investigations in the treatment of leprosy and of narcotic addiction, and in many other aspects of modern medical practice. They are among the Nation's primary resources for the training of physicians, nurses and other health personnel.

Hospitals and Outpatient Facilities

The Division of Hospitals operates the medical care program for legal beneficiaries of the Public Health Service. Besides American seamen, these patients include officers and enlisted men of the Coast Guard, officers and crew members of the Coast and Geodetic Survey, commissioned officers of the Public Health Service, civil service employees of the Federal Government injured in performing their work, active duty and retired members of the Uniformed Services and their dependents, and several other groups.

In 1959, the Division maintained 16 hospitals, 26 outpatient clinics, and 99 outpatient offices. Twelve of the hospitals provide general medical and surgical services; one is exclusively for patients with tuberculosis; two are for the treatment of narcotic addiction and other neuropsychiatric disorders; and one provides care for persons with leprosy. The general hospitals are in major port cities, such as Boston, New York, Baltimore, New Orleans, Chicago, Detroit, San Francisco, and Seattle. In certain other places, depending upon the concentration of beneficiaries, outpatient clinics and outpatient offices have been established. The clinics, staffed by full-time personnel, provide comprehensive medical, dental, and allied health services.

Local physicians conduct the outpatient offices in their private facilities on a part-time basis, as needed.

VOLUME OF SERVICES

Inpatient admissions in all of the Public Health Service hospitals during 1959 totaled 49,786—a 1.9 percent increase over 1958. In addition, 720 babies were born in these hospitals in 1959, as compared with 650 the year before. The average daily census was 5,140, a decrease of 2.7 percent. Meanwhile, the number of outpatient visits to hospitals and clinics rose 1.7 percent—to 1,108,751.

General hospitals.—The general hospitals admitted 45,072 patients in 1959, a 3 percent increase over the 43,760 admissions in 1958. The average daily patient load at 2,703 was off 1.5 percent. Days per admission at the general hospitals in 1959 averaged 21.9 as compared with 22.9 in 1958.

Tuberculosis.—The Division's tuberculosis hospital at Manhattan Beach, Brooklyn, N.Y., admitted 309 patients in 1959, a decrease of 18 percent. The average daily census dropped 14.8 percent.

All the accepted new drugs in the treatment of pulmonary tuberculosis are used at the hospital, and the staff keeps abreast of the status of experimental drugs and of therapeutic and surgical procedures for diseases of the chest.

Leprosy.—The U.S. Public Health Service Hospital at Carville, La., is the only hospital in the continental United States devoted exclusively to the treatment and rehabilitation of patients with leprosy.

Admissions at Carville totaled 62 in 1959 as compared with 73 the year before; the average daily census decreased from 296 to 277.

Throughout the year, efforts were intensified toward realizing Carville's potential as a principal center for training of personnel and investigation in the field of leprosy. An apportionment to the hospital earmarked for research permitted reorganization and expansion of the laboratory branch. The research effort was chiefly directed toward some of the still unknown characteristics of *M. Leprae* and the group of bacteria to which this organism belongs. Cooperative projects with research workers elsewhere were continued. A 15-minute scientific film, "Recognition of Leprosy," was completed.

More than 8,000 visitors came to the hospital during the year. Many were physicians, nurses, and other health workers from all over the world who came to observe and learn the method of treatment.

Narcotic addiction.—The U.S. Public Health Service Hospitals at Lexington, Ky., and Fort Worth, Tex., have been in operation since 1935 and 1938, respectively, primarily for the treatment of narcotic addicts, as defined by Federal law. They also admit mentally ill patients entitled to care as beneficiaries of the Federal Government.

In 1959, these hospitals admitted 4,343 patients, a 6.4 percent decline from 1958. Addict admissions fell from 4,317 to 3,979; "non-addict" admissions rose from 324 to 364. The average daily census of addict patients was off 2.9 percent from 1,367 to 1,328. Voluntary patients accounted for 86 percent of the addict admissions.

MEDICARE

The Dependents' Medical Care Act, which became effective December 7, 1956, authorized Public Health Service hospitals and clinics to admit active duty and retired members of Federal Uniformed Services and their dependents, and the dependents of deceased members of these services. Patients eligible under this MEDICARE program made increased use of Service facilities during the past year. For example, admissions of Uniformed Service personnel and dependents to USPHS hospitals in June 1959 totaled 1,253, an 11.3 percent increase over June 1958; the 33,997 outpatient visits in June 1959 was 16.8 percent greater. The June 1959 average daily census of Department of Defense beneficiaries in USPHS hospitals totaled 242. The number of dependents of PHS beneficiaries in Army, Navy, and Air Force hospitals averaged 115 during the same month.

TRAINING MEDICAL CARE PERSONNEL

Over 280 physicians, dentists, pharmacists and dietitians participated in internship and residency training programs in U.S. Public Health Service hospitals during fiscal year 1959. Ten of the hospitals are approved for post-graduate medical training by the American Medical Association's Council on Medical Education and Hospitals. Residency training is offered in a dozen medical specialties. Nine of the hospitals have approval by the American Dental Association to conduct dental internships. Approved dental residencies in oral surgery and prosthodontia were in progress at the Service hospitals at Staten Island and Seattle, respectively.

Affiliations with colleges and technical schools afford practical experience and clinical instructions to more than 100 undergraduates in physical therapy, occupational therapy, vocational therapy, social service, and medical technology. During the year, an affiliation in dental hygienist training was initiated by the USPHS Hospital in San Francisco with the University of California School of Dentistry's Division of Dental Hygiene. Similar programs were in progress at the USPHS Hospital in Seattle, cooperating with the University of Washington's Oral Hygiene Department, and with the dental assistant training program of the Edison Technical School. The USPHS Hospital in Baltimore, Md., has an approved 1-year course in medical record library science, and the USPHS Hospital on Staten Island, N.Y., provides the clinical nursing portion of the hospital corpsmen training given by the Coast Guard.

Early in the year, the USPHS Hospital in Chicago, Ill., received a Certificate of Merit signed by the Secretary of the Army and the Commanding General of the Fifth Army for "whole-hearted aid rendered to the 801st General Reserve Hospital in support of food handlers' and X-ray technicians' training * * *."

CLINICAL INVESTIGATIONS

In 1959, the Division of Hospitals approved 59 clinical investigation projects to be conducted at 10 of its hospitals. These investigations include clinical trails and evaluations of newly developed drugs and procedures, further inquiries on heart, kidney and liver pathology, diagnosis and treatment of cancer, and studies of dental procedures.

Dedication of the Seamen's Memorial Research Laboratory at the U.S. Public Health Service Hospital in New Orleans, marked the first instance of a Service hospital allocating a structure exclusively for research purposes. Formerly used as quarters for employees, the renovated building contains laboratory space and equipment to facilitate the hospital's performance of clinical investigative projects in basic sciences and in such fields as cancer, heart disease, and tropical diseases. Initial research activities in progress represent co-operative effort among the hospital, local medical schools, and the Service's National Institutes of Health.

FEDERAL EMPLOYEE HEALTH PROGRAM

The Federal Employee Health Program closely parallels the practice of occupational health. Public Health Service medical and nurse officers in this program have responsibility for planning and conducting employee health activities designed to maintain optimum health and well-being among Federal employees, including public health, preventive health, and emergency medical care.

On a reimbursable basis, the Program operates 30 health units for Federal agencies that request this service. Located in Washington, D.C., Denver, Colo., New York, Kansas City, Boston and Waltham, Mass., and Belle Meade, N.J., these units are available to a population of over 50,000 Federal workers.

During the year, several health units cooperated in tests and demonstrations for visual acuity, glaucoma, and diabetes. They also participated in vaccination projects against poliomyelitis and influenza.

Twenty-six units which participated in the new Executive Health Maintenance Program gave 449 physical examinations to key employees holding executive positions in Federal agencies. This program, begun in January 1958 in one health unit, was expanded to its present scope during fiscal 1959 by the addition of contract physicians, serving one or more clinic sessions per week, to most of the units which previously provided only nursing services.

FREEDMEN'S HOSPITAL

Outpatient visits at Freedmen's Hospital in Washington, D.C., reached 97,298 in 1959, more than 2,000 above the previous year. Inpatient admissions increased slightly, totaling 14,051.

Freedmen's serves as the clinical teaching resource for junior and senior students of the Howard University College of Medicine. The hospital also offers approved internship and residency training as well as accredited educational programs in other professional categories, such as nursing, X-ray technology, and medical social work.

During 1959, a total of 46 residents received advanced training in 13 medical specialties. In addition, there were 16 medical interns, 2 dental interns, and 7 research fellows.

The School of Nursing graduated 22 students on September 12, 1958, bringing its grand total of graduates to 1,374. Three members of the class subsequently scored "cum laude" on State Board Examinations.

Four X-ray technology students were graduated from the hospital's recently approved course and all passed the qualifying examination conducted by the American Board of X-Ray Technology. Two pharmacists and ten dietitians also completed internships. The Social Service Department trained one student for field work practice in medical social work.

Over 40 clinical research projects were under active study at the hospital during the year. Approximately 35 scientific articles by staff members were either already published or in press at year-end.

Foreign Quarantine

Protection of the United States against diseases that may be brought in from other parts of the world continues to be a major responsibility of the Public Health Service.

In spite of the increasing danger caused by the increased speed and volume of international traffic, no quarantinable diseases were introduced into the United States in 1959. For the sixth consecutive year, the Nation was free from smallpox, despite outbreaks throughout the world.

There was an outbreak of smallpox in Heidelberg and East Berlin, Germany, and a recurrence of the disease in Liverpool, England. Scattered cases of smallpox occurred near the Red Sea and the Persian Gulf, including the countries of Kuwait, Qatar, Iran, Iraq, and Egypt. These are areas of epidemiological importance because of commerce with the Middle East oil fields.

In the Far East, smallpox remained endemic and epidemic. An outbreak occurred in Thailand where for 30 years there had been only scattered cases. The disease remained at a low endemic level

in most countries of Africa, but occurred in the port of Dakar, French West Africa, an important crossroad of international traffic. In South America, there was an outbreak of smallpox in Brazil which might have been a threat to the United States except for protection given by the staff of the Division of Foreign Quarantine.

Smallpox is a potential danger to the United States because of the wide distribution of the disease, the constant increase in number of Americans traveling to remote areas of the world, and the continued reduction in travel time between countries by air transportation. It is a disease which can be controlled by maintaining a vaccinated population, including the moving population of persons in international traffic.

Cholera continued to be confined to the Far East. It reappeared in Thailand in 1958 and remains at an endemic level there. An epidemic of cholera was reported in Nepal.

Yellow fever was reported during the year in a forest area of Trinidad—its second occurrence there in the past 5 years. Because of a vigorous vaccination program and other control measures, it did not spread to other areas.

Sixteen additional yellow fever vaccination centers were designated in the United States, making a total of 138 in Public Health Service facilities and in medical facilities of health departments and private organizations. The majority of these centers offer service to the general public.

The Division's program to control the yellow fever mosquito was extended to cover international traffic areas of Puerto Rico and the Virgin Islands where the index of the *Aedes aegypti* mosquito was high. Thus the *aegypti* population in many international airports and docks was greatly reduced.

Breeding of this mosquito was also reduced in international traffic areas of the yellow fever receptive zone across the Southern States.

Aircraft, ships, and land conveyances arriving in international traffic channels were examined for presence of arthropods that can carry disease, and insecticides were applied in many cases.

A case of vivax malaria in a crew member of an alien ship was detected by quarantine personnel at Tampa, Fla., and treatment was begun. This action prevented recurrence of the disease in an area where malaria has been successfully eradicated.

VOLUME OF INTERNATIONAL TRAFFIC

Inspections of aircraft for quarantine or immigration-medical purposes increased again, from 68,703 in 1958 to 70,607 in 1959. Inspections of ships decreased slightly, from 34,120 in 1958 to 33,271 in 1959.

Travelers arriving in the United States from abroad, including the interior of Mexico, who are subject to quarantine examination in-

creased from 5,217,627 to 5,264,354. Largely because of the occurrence of smallpox in Germany and England, 607 persons were detained in isolation at ports of entry, compared with 124 in 1958. The number of incoming travelers who were allowed to continue on to their destinations in the United States, but were subject to medical observation for a time, was 117,310 as compared with 58,083 in 1958.

MEDICAL EXAMINATIONS

General program.—The number of aliens examined abroad by medical officers continued to decrease, from 190,526 in 1958 to 155,068 in 1959; those examined were mostly immigrants. Aliens examined upon arrival at United States ports increased from 2,503,740 to 2,669,768; these included tourists, business men, and students. Of the aliens examined abroad, 2,776 were found to have diseases or conditions excludable under the immigration law. Among those examined at ports in this country, 2,695 were found to have excludable diseases or defects; many had been so diagnosed abroad, but were admitted under special provisions of the immigration law.

Immigration of aliens with tuberculosis.—The immigration of certain aliens who have tuberculosis continued for the second year under a provision of Public Law 85-316 which allows this privilege to those who are close relatives of American citizens or resident aliens. If the disease is in the communicable stage, they remain in isolation while aboard ship and while traveling to hospitals where care has been arranged for them. Under this law, quarantine officers abroad examined 1,073 aliens with confirmed or suspected tuberculosis during the year, and officers at U.S. ports examined 1,445.

Migratory farm labor.—Under an agreement with the Department of Labor, the Division is responsible for medical examinations of Mexican migratory farm laborers who cross the border to work on farms and ranches in the United States. Preliminary examination and vaccinations are given at three migratory centers in Mexico. Further medical examination, including X-raying and serologic testing for syphilis, is given at five reception centers along the Mexican border in the United States. In 1959, the eighth year of this program, 437,920 laborers were examined, with 8,370 rejections, at the three centers in Mexico; 489,477 examinations were made, and 5,215 laborers were rejected, at the reception centers on the border.

Use of the plasma reagin test developed by the Public Health Service's Communicable Disease Center for the rapid testing for syphilis was extended to all five reception centers; 339,064 serologic tests were performed and 20,693 positive reactors were identified. With few exceptions, laborers showing positive reactions were treated with penicillin.

OTHER QUARANTINE ACTIVITIES

A new office was opened in Montreal, Canada, to handle quarantine activities for traffic in the St. Lawrence Seaway. The visa medical examination program for Eastern Canada was reorganized, and supervision was placed under the Toronto office.

Rat control in port areas and on vessels in international commerce was continued, with good results, as part of the sanitation program. This program was broadened to include measures to improve food sanitation on vessels from foreign ports.

In response to a request made through the International Cooperation Administration, the Government of Iran received technical advice from the Public Health Service in surveying, reorganizing, and modernizing its quarantine program.

Health Services for Indians

In November 1958, eyesight was restored to a 16-year-old Eskimo girl in the Public Health Service Hospital at Anchorage, Alaska, which serves beneficiaries of the Indian health program. This was the result of the first corneal transplant ever performed in Alaska.

The successful conclusion of this complicated operation holds deep significance for the Indian and Alaska Native people. It is an example of the steady progress being made in the improvement of their health services, a symbol of the joint effort of public health, modern medicine, and the people to raise the levels of Indian health.

Health officials classify such an operation as "elective surgery"—medical service provided to improve the value of human life as distinguished from that essential to the actual preservation of life. While elective surgery is not wholly new in the Public Health Service's Division of Indian Health, there has been little opportunity to provide this type of service in the past. The hospitals serving Indians and Alaska Natives were for years so overburdened with efforts to save lives that they were in no position to undertake costly and difficult procedures to bring a better life to many who could be benefited.

Shortages still exist, but throughout the program, with its hundreds of health facilities that reach from above the Arctic Circle to the Mexican Border, the major emphasis in 1959 has been on improvement in the quality of health services.

A larger health staff, improved facilities, more funds for contract patient care and specialist services, and wider opportunities for staff training are key factors that make possible the increases in elective surgery, more effective protection of the Indian and Alaska Native populations from disease, and better treatment for illness of all types.

About 345,000 Indians and 37,500 Alaska Natives depend to vary-

ing degrees for their essential health services on the Indian health program. Many of them know no other source for these services. To meet their needs for both preventive services and medical care, the Division of Indian Health conducts the largest and most comprehensive civilian health program within the Federal Government. Services of this program are provided through its 53 hospitals and its system of field health clinics and other facilities at about 300 locations. In addition, beneficiaries of the program are served extensively through contractual arrangements with non-Federal hospitals, private physicians and dentists, and other health agencies.

The 1959 appropriation for Indian health activities amounted to \$42,327,000. An additional sum of \$6,010,000 was appropriated for construction of new health facilities, staff housing and hospital improvements.

NEW AND IMPROVED HEALTH FACILITIES

A new regional hospital and medical center is now being built at Gallup, N. Mex. Participants in the ground-breaking on May 20, 1959, included representatives of the Indians whose health needs will be better served by the new facility, planners, administrators of Indian health and Indian affairs, physicians who may be called upon as specialists, and residents of the non-Indian community.

In this setting, construction started on the largest and most ambitious of many projects under way to provide better facilities for Indian health. Nearly a hundred miles to the north, at Shiprock, N. Mex., another Indian hospital is approaching completion. This 75-bed hospital will be ready for use by December 1959.

On January 30, 1959, a contract was awarded for construction of the new 50-bed hospital being built at Kotzebue, Alaska. Replacing an old, unsafe, and inadequate hospital at the same location, this facility is one of the Nation's only two hospitals located above the Arctic Circle.

Just before the close of the fiscal year, a contract was awarded for construction of a new 50-bed hospital at Sells, Ariz. During the year, engineers of the Division of Indian Health and the Geological Survey of the Department of Interior succeeded in finding beneath the rocky crust of the Sonoran Desert—in which Sells is located—a suitable water source for the hospital. The lack of a source of water had long delayed the construction of the sorely needed hospital for the Papago Indians.

All 4 major hospital modernization projects authorized were under way at the year's end. Contracts were let for five additional modernizations. Of five major hospital alteration projects, one had been completed prior to the beginning of the year, and four were underway at the close of fiscal 1959. In addition, 14 new health centers and

field health clinics were completed; and contracts were awarded for 21 new staff housing units.

Under the terms of Public Law 85-151, enacted in 1957, 77 new beds for use by beneficiaries of the Indian health program are being provided in community hospitals now under construction for joint use by Indians and non-Indians. This law authorizes the Public Health Service to participate financially in the construction of such joint use facilities. The new beds for Indian use are in 10 hospitals located in California, Minnesota, Montana, North Dakota, and Wyoming.

TRENDS IN THE PROGRAM

Closer coordination of Federal, State, and local health services for Indians is resulting in better use of community health resources. Largely as a result of grants under the Hill-Burton program, many smaller communities in Indian Agency States now have excellent community hospitals which are close to Indian reservations and settlements. To an increasing degree, modern health services provided by these facilities are being utilized to augment the services provided through the 53 hospitals operated directly by the Indian health program. At the close of the year, contracts or arrangements for reimbursement for treatment of Indians were in effect with approximately 225 non-Federal hospitals.

Hospital services were discontinued at the small, uneconomical hospital in Nespelem, Wash., and at the one in Juneau, Alaska. Inpatient care for beneficiaries at these locations was shifted wholly to up-to-date community hospitals under contract. The Nespelem hospital was converted into an Indian health center providing both preventive and therapeutic services for outpatients. Upon closure of the hospital at Juneau, an outpatient health center for beneficiaries in that community was established at the St. Ann's Hospital.

Approximately \$8 million was spent in 1959 on patient care provided through contracts with community hospitals and by individual physicians and dentists. Increasing sums were spent for specialist services which otherwise would have been unavailable.

Reflecting the dramatic successes achieved in efforts to cut tuberculosis incidence and death rates, arrangements were made to terminate operation of the 330-bed Indian tuberculosis sanatorium at Tacoma, Wash. The smaller numbers of tuberculosis patients needing hospital treatment in this area now receive care in contract facilities closer to their homes.

HEALTH PROBLEMS OF THE INDIANS

Most of the beneficiary populations live in relative isolation, without the health resources and services available to most of our population. Tens of thousands of Indians and Alaska Natives have had little

or no opportunity to learn the essentials of individual or community health protection. Nor have they the means for adhering to recommended health practices, even where these are understood. The majority do not even have access to toilets or sanitary privies. Too often, their foods are insufficient in kind or amount to permit nutritionally adequate diets. In many cases, their food is contaminated. Overcrowded and inadequate housing is commonplace.

Domestic water supplies used by Indians and Alaska Natives generally are grossly inadequate. Many thousands of these people must haul water a mile or more, often from polluted sources.

It is not surprising, then, that many of them die of diseases which pose no serious problems in most well-protected American communities. Their deaths from such preventable diseases as influenza, pneumonia, tuberculosis, and gastroenteritis are 3 to 9 times higher than in the general population. Average age at death among the Indians is 22 years earlier than the national average of 62. One-fourth of all Indian deaths occur among infants, compared with only 7 percent among the infants of the Nation as a whole.

SERVICES PROVIDED

Partly as a result of the declining tuberculosis patient load and the increasing volume of services to outpatients, hospital admissions showed a relatively small gain in 1959. Nevertheless the total number of admissions—more than 73,000—established an all-time record. Of these, 18,700—primarily general patients—were to contract hospitals, representing an increase of 12.5 percent over last year.

Throughout 1959, disease prevention continued to receive heavy emphasis. The outpatient departments of the Service-operated hospitals recorded 605,000 visits for treatment and preventive services, an increase of 5 percent over 1958. Indian health centers and field health clinics are providing a steadily increasing volume of preventive and therapeutic services in response to rising demands.

Dental examinations were provided for more than 67,000 patients. More than 164,000 patients were given dental treatments, including 9,500 treated by contract dentists. In addition, nearly 10,000 children received topical fluoride treatments to inhibit tooth decay.

The vast majority of program beneficiaries need dental care. However, limitations in the program make it impossible to serve more than about 20 percent of this population, with major attention being provided for children. Of those who do receive treatment, less than one-half of their dental needs can be met.

Qualitative improvements in services are not in all cases revealed in operating statistics. Today, for example, it is possible for a beneficiary to obtain the skilled help of a medical social worker in dealing with problems which, if unsolved, impede recovery or even stand in

the way of discharge from the hospital. Nutrition services are making headway against dietary problems which affect large segments of the beneficiary population. Health education, now including the production of modern teaching aids aimed specifically at tribal groups, is making a greater impact. Public health nursing, special services for mothers and children, and medical record and referral services were strengthened during the year.

ENVIRONMENTAL SANITATION

Of the major factors contributing to high disease and death rates among Indians and Alaska Natives, none is more significant than the unfavorable environment in which most of them live. This environment has been subjected to careful study in the field, and the extent of environmental health hazards is well defined.

Field surveys confirm the general use of unsafe water, dangerous disposal of human and other wastes near living quarters, contamination of food, infestations of rodent and insect pests, and grossly overcrowded and substandard housing. These factors are major causes of the high infant death rate, and the excessive death rates among all age groups resulting from infectious diseases such as tuberculosis and gastroenteritis.

Intensive efforts, directed by the program's sanitary engineers and carried out with the help of many Indian and Alaska Native sanitarian aides trained by the Public Health Service, are helping the beneficiaries to overcome their unfavorable environmental conditions. With this guidance and their limited resources, the Indians and Alaska Natives are developing new and safe water sources and are building sanitary waste and refuse disposal facilities.

On July 31, 1959, Congress enacted Public Law 86-121, which authorized the Service to provide sanitary facilities for beneficiaries of the Indian health program. Included are domestic and community water supplies and facilities, drainage facilities, and facilities for sewage and waste disposal. The law permits the Service to make joint arrangements for participating in such projects with tribal groups, local authorities, and other public and nonprofit agencies, both in construction costs and in subsequent operation and maintenance. The Service also is authorized to acquire necessary lands, accept contributions, and transfer completed facilities to State or local authorities or to the tribal groups concerned for continued operation and maintenance.

Hospital and Medical Facilities

The dollar volume of hospital and health facility construction started in the United States, both with and without Federal aid,

reached new peaks in fiscal 1959. However, there was little change in the total numbers of hospital beds and health facilities currently needed. Over the past decade substantial progress has been made in meeting needs for general and community hospitals, but progress in constructing other kinds of health facilities has been less rapid. Rising building costs, population growth, and the obsolescence and abandonment of old facilities are among the factors affecting the general rate of progress.

In addition to administering the Federal share of the construction program, the Division of Hospital and Medical Facilities conducted research and planning projects to bring about better use of hospital resources and services. To develop working principles for planning the hospitals and medical facilities of the future, four regional conferences were held in cooperation with the American Hospital Association.

An agreement was made with the Office of Civil and Defense Mobilization to develop plans for hospitals illustrating methods of protecting patients, personnel, and facilities from blast and fallout.

The Baptist Memorial Hospital in Oklahoma City was the first facility to benefit from the legislation of 1958 authorizing the making of construction loans in lieu of grants. The Baptist General Convention of Oklahoma, sponsor of the \$4,533,355 project, received a loan of \$507,568. The hospital was opened on April 15, 1959.

CHANGING NEEDS AND EMPHASES

Inventories from the States showed that 77 percent of the need for general hospitals was met in 1959, as compared with 75 percent in the previous year and 59 percent in 1948 when State inventory records first became available. The Nation's greatest need in health facilities continues to be additional chronic disease hospitals and nursing homes; the need met is only 15 percent and 35 percent, respectively.

There has been little change in the need for mental hospitals. There still are fewer beds in proportion to requirements than were reported in 1948—52 percent as compared with 55 percent.

For all types of hospitals, the Nation still needs 867,000 additional beds according to State plans on record January 1, 1959. In addition, 252,000 additional nursing home beds are needed for skilled nursing care, or 65 percent of the total requirements in this field.

RESEARCH—HOSPITAL ADMINISTRATION

Studies in "progressive patient care"—the better organization of hospital services around the medical and nursing needs of the patient—continued to take the spotlight, with special research designed to analyze hospital staffing patterns, bed allocations, and costs.

A project was begun to find ways to provide effective, economical hospital care in metropolitan areas. Some of the questions to be answered are how to measure the relative obsolescence of the hospital plant of major central cities and the need for additional services in areas of urban sprawl, and how to develop methods that will coordinate services in major metropolitan areas.

An evaluation and appraisal project—begun in 1957 to determine the effect of the small hospital on a rural community and the value of Public Health Service guide material in architectural and equipment planning—was completed in April 1959 and an analysis of the findings was under way as the fiscal year ended.

At the request of the Pennsylvania Department of Public Welfare, a joint study was begun of the cost of providing care in Pennsylvania nursing homes. It is designed to provide: (1) cost data on facilities of varying levels of service, for use in determining equitable public assistance payments; and (2) guide material for administrators of nursing homes.

Two architectural and engineering studies were completed, on the problem of controlling noise in hospitals and on requirements of rehabilitation facilities; and a third was in progress on the adequacy of lighting in patients' rooms.

Research completed shows that persons with comprehensive hospital and medical care insurance use hospitals less than persons whose policies cover only hospital care. This indicates that community planning of health facilities must take into account the kind of prepaid care as well as the amount of hospitalization insurance of those who may be served. Another study shows the need for a new pattern for organizing a community program for the care of the aged: facilities for those in good health and for those needing medical care should be located in close proximity and should be under the same administrative management.

A study of the advisability of physicians locating their private offices in hospitals showed that this practice results in efficient use of time and good use of the hospital's scientific facilities.

SCOPE OF OPERATIONS

Since the first appropriation in 1948, the amount of grant funds available annually for construction of hospital and medical facilities has varied from \$65 million to \$185 million. The 12-year (1948-59) average was \$104 million annually. The Federal share has averaged about one-third of the cost of Hill-Burton projects.

On June 30, 1959, there were 1,458 projects in the construction or preliminary planning stages. These will provide 63,230 beds for inpatient care and 432 health units for outpatient care. Health units

include public health centers, State health laboratories, diagnostic and treatment centers, and rehabilitation facilities. The estimated total cost of these projects now underway was \$1.485 billion. This level of activity was higher than in any previous year. The national volume of all new construction started for health facilities was rising and in terms of current dollars had exceeded the postwar peak attained in 1951. Recent increases in construction costs, however, offset this high volume considerably in net capacity produced. The volume of all work placed in fiscal 1959 was \$1.021 billion, an increase of 11 percent over 1958. The volume of federally aided work placed in fiscal 1959 was \$416 million, as compared with \$320 million in 1958.

From the beginning of the Hill-Burton program through June 30, 1959, 4,625 projects had been approved for Federal assistance. Of these, 3,167 projects, providing 135,080 beds, had been completed and were in operation; 1,206 projects, which will add 52,337 beds, were under construction. The remaining 252 projects were in the preconstruction stage; these will provide 10,893 beds. A grand total of 198,310 hospital beds and 1,245 health units for outpatient care will be available as a result of these projects.

The Hospital and Medical Facilities Survey and Construction Act was amended to authorize a State to transfer to another State a portion of its allotment for construction of hospitals and public health centers.

Dental Resources

The number of dentists who were graduated from dental schools in 1958 fell below the number required simply to maintain the Nation's already inadequate supply. The fact that too few dentists are being trained, coupled with increases in numbers of persons seeking dental care and in amounts of care they want, emphasizes the need for orderly expansion of educational facilities, better use of skills, and greater understanding of demands for service.

To provide facts needed for the realization of these goals, the Division of Dental Resources conducted studies in 1959 on manpower supply and requirements, educational methods, and the growth and effects upon demand of various dental payment plans. It continued field tests of an epidemiological measurement for malocclusion.

MANPOWER STUDIES AID SCHOOL PLANNING

The New England Board of Higher Education recommended that both Massachusetts and Connecticut begin plans for new dental schools, and that a third new school in New England be considered; it recommended further that two existing schools in Massachusetts

be expanded. These recommendations were based on a Division study of manpower trends in New England. The Board's report, published in October 1958, shows that New England's dentist supply, previously adequate, is beginning to decline.

A similar study prepared for the University of Illinois revealed that the Great Lakes region has a greater immediate need for dentists than any other region in the United States and that the deficits in Ohio and Michigan are among the largest in the Nation. As a result of these findings, the University of Illinois plans additional dental school facilities, and other States are analyzing their requirements.

The Division had under way a similar study in the Midwest and made plans for one in the Middle Atlantic States. These will complete the series of regional studies which are to be used as the basis for analyzing long-term national trends.

One way of extending dentists' services is by employing auxiliary personnel. Continuing a 4-year program begun in 1957, the Division cooperated with six dental schools in training undergraduate students to work effectively with chairside assistants. Results already show increases in the amount and quality of dental work by the students. Better methods of providing this training are being developed. Findings may also serve as guides to changes in curriculum content and timing of courses, as well as in establishment of standard training courses for chairside assistants.

NEW APPROACHES TO THE PURCHASE OF DENTAL CARE

One reason for expecting marked increases in dental demand is the steady growth of various types of dental payment plans. By making services available at a planned expense, or by providing care through special facilities, these programs reduce a great barrier to the demand for care—the cost.

The Division conducted a series of studies during the year designed to fill a demand for information on the administrative structure of payment programs and on the extent and type of service utilization by beneficiaries. Budget payment plans, through which patients may borrow money at moderate interest rates to finance care, are covered in two reports: (1) an analysis of utilization of the Nevada State Dental Society's plan, by age, sex, and income groups, which was published; and (2) a similar study of a West Virginia plan, not completed by the end of the fiscal year. Work was continued on a report of a dental service corporation's initial experience in operating a dental program for public assistance beneficiaries in Washington State. A glossary of terms for use by groups interested in developing dental payment programs was completed.

Three studies of the types and amounts of care given by group clinics to different population groups were in process. One analyzes the dental services provided by outpatient clinics in Washington, D.C., to Public Health Service and Coast Guard beneficiaries. Another offers similar information on families who paid annual premiums to enroll in a communitywide dental plan offered by a private clinic in California. A third covers the dental program of Group Health Association, Inc., of Washington, D.C.

TECHNICAL RESEARCH

Field tests of an epidemiological measure for malocclusion developed by the Division were expanded to include examinations of adults and elementary school children. Dentists on the Division staff also played a major part in developing and standardizing a dental examination form for use in the National Health Survey.

Nursing Resources

The Division of Nursing Resources was established in 1949 to attempt solution of the national problem of nursing shortages. State surveys conducted between 1949 and 1952 showed that inadequate nursing services were due as much to misuse of nursing skills as to scarcity of nurses.

The Division therefore developed the nursing activity study, a method by which hospitals could find out for themselves how their nurses actually distribute their time, and how they may save professional nurse time by delegating messenger or clerical duties to non-professional staff. "Design for Statewide Nursing Surveys" and "How to Study Nursing Activities in a Patient Unit," two Division publications, describe methods for surveys and activity studies.

Since 1954, this Division has conducted basic research to arrive at new knowledge about nursing practice and patient needs. In 1955, with the establishment of the Research Grants and Fellowships Branch, the Division's scope broadened to include support of research outside the Public Health Service. A year later, there was further expansion to include the Professional Nurse Traineeship Program. This program supports advanced education to qualify graduate nurses for teaching, supervision, and administration.

APPLIED RESEARCH

Hospitals are becoming increasingly aware of the benefits to be derived from nursing activity studies. A hospital in Tennessee reports these gains: head nurse time with the patient has been doubled; nursing aide time (nonprofessional) with the patient has gone down 46 percent. The yearly saving on nursing services—in one shift of a single unit—has been considerably over \$1,000.

In previous years the Division has conducted statewide surveys of nursing resources. Now that survey techniques have been developed, the Division is changing its policy in regard to specific technical assistance. Nurse consultants will travel to the field to advise States on the kinds of activities which surveys require and to help State leaders focus on the kinds of questions which a State wants answered. The Division plans also to provide direction to States for the writing of survey reports. The great demand for consultation will require an increased number of nurse consultants in the field.

This year the States of Connecticut and Texas completed their nursing surveys. Surveys in Kansas and Massachusetts got under way.

Each of this year's completed surveys tells a different story. Connecticut is short of nurses, although it has 431 nurses per 100,000 population. The problem in this State is not of supply but of distribution. In Texas, the present ratio of nurses to population is only 128 per 100,000. The projected increase in the State's aging population may be expected to further aggravate an already precarious nursing shortage. The problem in Texas is not primarily one of distribution, but rather of recruitment.

The overall national goal is to have approximately 300 nurses per 100,000 by 1970; the 1958 ratio was 268 per 100,000.

BASIC RESEARCH

An intramural research project entitled "Study of Student Perception of Patient Attitudes," inquired into the ability of student nurses to detect their patients' feelings about certain aspects of nursing care. Some 400 students in seven schools of nursing participated. The findings show that freshmen and seniors alike had difficulty in estimating the degree of importance which various aspects of hospital care had in the eyes of patients. In cases where students' responses disagreed with those of patients, the students had overestimated the importance of social environment and underestimated the importance to the patients of information, assurance, and items of physical care. This study is expected to have special interest for teachers and supervisors in planning for the learning experiences of student nurses.

A study was undertaken in cooperation with Bellevue Hospital to find out whether premature infants who were given an artificial back support fashioned of a rolled diaper made more rapid progress than those who were not given this extra nursing attention. Findings show that the diaper roll did not affect weight gain. An important byproduct of this research is a 61-point checklist for the objective recording of feeding behavior.

Out of the research on premature infants grew a study, also conducted at Bellevue, on the response of infants to unheated formula.

The Cold Formula Study provides reason to reconsider traditional practices in infant feeding. Over a period of 13 weeks, a group of 20 babies was fed cold formula; another group of 20 was fed heated formula. The cold formula group accepted the unheated nourishment readily and there were no visible differences in the progress or behavior of the two groups.

Twenty-six nurses have been interviewed to find out what prevents them from enjoying or getting satisfaction from the time they spend with patients. Analysis of the data may provide clues to nurse dissatisfaction.

"A Study of Supervisors: Personality, Perception and Behavior," begun this year, seeks to determine what characteristics supervisors have in common, and whether supervisors, as a group, are able to give sufficient time to duties they consider important. It is hoped that the data may lead to a more precise understanding of the supervisory function and to ways of increasing work satisfaction.

Nurses have traditionally classified patients by medical diagnosis rather than by individual patient care needs. As yet in the developmental stage is the "Comprehensive Nursing Care Study," which proposes to provide nurses with a guide for classifying patients according to their nursing care needs. Such a guide would facilitate assignment of nurses on the basis of abilities and experience.

SUPPORT OF EXTRAMURAL RESEARCH

The Research Grants and Fellowships Branch, in cooperation with the Division of General Medical Sciences, National Institutes of Health, supports grants for research in nursing outside of the Service and also supports fellowships for training in nursing research.

During the year there were 37 grants for nursing research: 13 on nursing care, 6 on administration of nursing services, 7 on nursing as an occupation, 9 on nursing education, and 2 for the stimulation of nursing research. Awards were made for 16 full-time and 36 part-time fellowships for research training in nursing.

The Research Grants Branch has been able to meet only about one-fourth of the demands from the field for consultation on the kinds of nursing studies that need to be undertaken, for assistance with the formulation of nursing research projects, and for assessment of research facilities. The quality of applications for grants is improving. In June 1959, the Nursing Research Study Section for the first time recommended approval for as many as two-thirds of the applications under consideration.

STIMULATION OF NURSING EDUCATION

The Professional Nurse Traineeship unit has extended its program to include traineeships for nurses who already had some experience in teaching, administration or supervision, and who were within a year

of completing a nursing program leading to a baccalaureate degree. An additional 28 schools have come into the program, bringing the total number to 88. Awards were made to the schools for 1,756 traineeships for the year ending June 30, 1959. The traineeship staff made visits to 14 schools to improve their knowledge of program operations.

The Division conducted a national conference (August 1958) to evaluate the effectiveness of traineeships in preparing nurses for teaching, administrative, or supervisory positions. There were 68 conferees, representing principally education—nursing and general—medicine, nursing service, and hospital administration. The conference recommended that the traineeship program be extended for 5 years beyond the original termination date of June 30, 1959.

Medical Services for Federal Agencies

The medical care programs of the Federal prisons, the Coast Guard, the Maritime Administration, and the Bureau of Employees' Compensation were carried on by Public Health Service officers who are assigned to these agencies on a reimbursable basis.

UNITED STATES COAST GUARD, TREASURY DEPARTMENT

The health and medical services of the U.S. Coast Guard were provided by 85 Public Health Service officers—doctors, dentists, nurses, and others. Medical officers served on vessels engaged in operations of ocean weather station VICTOR in the Pacific and stations BRAVO and COCA in the Atlantic, and on other cruise ships as needed. Doctors and dentists served on the ship making the Bering Sea Patrol and the icebreaker used in operation DEEP FREEZE IV.

A dietitian was added to the staff of the Coast Guard Academy in New London, Conn., serving personnel of the school as well as cadets hospitalized in the infirmary.

After extensive study of artificial resuscitation, the Coast Guard adopted the mouth-to-mouth and mouth-to-airway methods as preferred. Recent scientific studies have shown these methods to be superior in providing rapid oxygenation of the blood. The techniques are easily learned, and were adopted at small additional cost.

MARITIME ADMINISTRATION, DEPARTMENT OF COMMERCE

Medical and dental care for the 740 cadet midshipmen and 216 faculty and staff members of the U.S. Merchant Marine Academy, Kings Point, N.Y., was provided by Public Health Service officers assigned to the Maritime Administration.

There were 749 admissions to the Academy's Patten Hospital, 28,273 outpatient treatments and services, including examinations and inoculations of cadets going on sea cruises, and 3,957 dental visits.

Research was begun into the incidence of dental caries among cadets entering the academy and progression of these conditions in the ensuing four years.

The Medical Officer in Charge of the U.S. Public Health Service Hospital on Staten Island continued to act in an advisory capacity to the academy in connection with the health program. The chief dietitian at Staten Island reviewed the academy's dietary service.

At Washington headquarters, the Public Health Service physician serving as Chief Medical Officer of the Maritime Administration gave professional counsel to the insurance department and the Office of Seamen's Services in preparing clinical abstracts.

BUREAU OF PRISONS, DEPARTMENT OF JUSTICE

The Public Health Service provides medical, psychiatric, psychological, dental, nursing, and related health services for the 22,000 Federal prisoners, in 31 institutions throughout the country.

During the past year, the extensive prison medical care program required the services of 244 full-time employees, including 54 physicians, as well as 212 consultants in the various medical specialties. In addition, approximately 900 inmates were assigned to the medical services of the various prison hospitals, where they received training and assisted with the hospital care program.

During the past fiscal year the medical staffs performed 735 major operations and 5,080 minor operations. A total of 827,664 treatments were given in the Outpatient Departments.

One of the most important developments during the year has been the increasing tendency of the courts to refer more cases to the medical staff for psychiatric study before final sentence is passed. Provisions for such referrals are provided by law.

A comprehensive study of 450 patients examined at the Medical Center for Federal Prisoners, Springfield, Mo., in connection with "mental competency" proceedings was completed during the year. Significant psychopathology was found in a large percentage of the cases, with more than 40 percent diagnosed as actively psychotic. The results of the study have proved to be of great value to the courts in sentencing prisoners.

In the institutions for young prisoners, age 18 to 25, the chronic shortage of psychiatrists and psychologists is being met with appreciable success through the education of custodial staff in the simpler techniques of managing persons with difficult mental and emotional aberrations. It appears that the program may be of great value in the rehabilitation of young offenders.

Medical research in the Federal prisons during the year included such projects as studies of the hallucinogenic drug, D-Lysergic Acid, by the Emory University hospital staff in Atlanta, Ga.; development

of a more potent vaccine for whooping cough undertaken by the Communicable Disease Center of the Public Health Service, also at Atlanta; a study of the chemistry of the normal knee-joint fluid by the Rackham Arthritis Institute; studies at Danbury, Conn., and Terre Haute, Ind., by Pfizer Laboratories to improve the efficacy of influenza and polio vaccines.

BUREAU OF EMPLOYEES' COMPENSATION, DEPARTMENT OF LABOR

Medical officers of the Public Health Service assigned to the Bureau of Employees' Compensation administer the medical care program for beneficiaries of the Federal Employees' Compensation Act. Medical care, including direct treatment and vocational rehabilitation services, is provided by facilities of the Public Health Service, by other Federal hospitals, and by designated physicians. Medical officers also provide technical advice to the Director of the Bureau in the adjudication of cases. They assist in the program of vocational rehabilitation and in the Bureau's staff training activities.

During fiscal year 1959 there was an increase of approximately 4 percent in the total number of work injuries reported to the Bureau. The number of fatal cases decreased approximately 15 percent because of legislation which removed members of the reserve force of the uniformed military service from Federal Employees' Compensation Act benefits as of January 1, 1957.

Medical officers of the Public Health Service assumed an increasingly prominent role in staff training activities of the Bureau of Employees' Compensation. One of the outstanding activities was the arrangement by the Medical Director for a series of six discussions on disability evaluation. The discussions were presented by specialists in the Public Health Service and private practice on diseases frequently encountered in compensation work.

Bureau of State Services

The Bureau of State Services is the unit of the Public Health Service which has primary responsibility for working with the States in disease control and the improvement of public health programs. It provides assistance to the States through consultative services, training, the conduct of demonstrations and pilot programs, and financial aid. The Bureau also conducts specialized research and field studies in programs related to public health services.

General Health Services

The programs administered by the Division of General Health Services are: the Arctic Health Research Center, the National Office of

Vital Statistics, program development, public health education, State grants, and professional training and traineeships.

STATE GRANTS

For fiscal year 1959, a total of \$267,475,000 was available for grants-in-aid to States and Territories to conduct public health programs and to build hospitals and other health facilities. This total reflects an increase over the preceding year of \$65 million for hospital and medical facilities construction and an increase of \$700,000 for venereal disease special projects. Funds for tuberculosis control, however, were decreased by \$500,000. The amounts of actual payment and the purposes for which they were made are as follows:

| | |
|--|---------------------------|
| General health services----- | \$14,924,302.00 |
| Venereal disease special projects----- | ¹ 2,389,659.92 |
| Tuberculosis control----- | 3,994,970.00 |
| Mental health activities----- | 3,986,362.00 |
| Cancer control----- | 2,171,242.00 |
| Heart disease control----- | 2,075,219.00 |
| Construction of community facilities in defense impact areas | 25,000.00 |
| Hospital and medical facilities construction----- | 135,133,829.78 |
| Waste treatment works construction----- | 36,429,071.08 |
| Water pollution control----- | ² 2,847,867.00 |

¹ Includes \$575,444.27 in supplies and services furnished in lieu of cash.

² Includes \$256,876.00 paid to interstate agencies.

Other funds used to help strengthen State and local health programs were: \$1,972,848.13 for traineeships for professional public health workers; \$199,936.79 for training and demonstration projects in air pollution control; and \$442,300 for grants to schools of public health for the provision of public health training.

Additionally, Alaska was paid \$638,000 in grant funds for disease and sanitation investigation and control activities and \$1 million for its mental health program. Upon Alaska's formal admission to statehood in January 1959, an arrangement of annual transitional grants was made to facilitate an orderly assumption of certain responsibilities previously performed by the Federal Government.

The Territory of Guam received grants-in-aid for the second year for public health programs and obligated \$97,333 of Federal grant funds for hospital construction.

ARCTIC HEALTH RESEARCH CENTER

The Arctic Health Research Center in Anchorage, Alaska, investigates problems associated with life in low temperature areas and cooperates with the Alaska Department of Health and other agencies concerned with the improvement of Alaska's public health and medical services.

The Center's research projects span a wide range of arctic and sub-

arctic health problems, including: a study of human burcellosis among Alaska Natives which indicates that reindeer and caribou may be potential reservoirs of this disease; a pilot study of corneal scarring; and various studies dealing with the ecology of enteric viruses, ambulatory chemotherapy for tuberculosis patients, physiological adaption to cold, and sero-immunology of Asian influenza in Alaska Natives.

Sanitation studies continue to be productive in improving water supply systems, waste disposal systems, and experimental housing and in adapting ideas and materials to meet the singular environmental conditions of Alaska.

NATIONAL OFFICE OF VITAL STATISTICS

The two-volume publication, *Vital Statistics of the United States*, 1957, and 17 *National Summary* reports of 1957 data were issued. Current data were regularly published in the *Weekly Morbidity and Mortality Report* and the *Monthly Vital Statistics Report*. In the *Selected Studies* series, reports were issued on birthweight and the survival of newborn infants; child-spacing; birth rate trends; and death rates from selected causes. Also completed were: a release of current data on illegitimacy and a projection of illegitimate births to the year 1970; a classification and listing of institutions in which births and deaths occur; and, in cooperation with Canada, England, and Wales, a study of the comparability of cause-of-death classification.

The following sampling survey studies were conducted in cooperation with the specified agencies: lung cancer (National Cancer Institute); bone sarcoma (Atomic Energy Commission); cystic fibrosis (Children's Bureau); and poliomyelitis vaccination (Communicable Disease Center).

The Marriage Registration Area, inaugurated by the National Office of Vital Statistics 2 years ago, now includes 36 States, with the admission of Kentucky during the year. Two States, Maryland and Kansas, were admitted to the Divorce Registration Area, started in January 1958 by NOVS; the total now includes 19 States.

Comprehensive surveys of registration and statistical programs were conducted in four States, and cause-of-death coding training was given in three States. Through an Interagency Committee, the NOVS cooperated with other Federal agencies and the States in developing procedures for registering births occurring outside the civil jurisdiction of the United States.

PROGRAM DEVELOPMENT

The Program Development Branch of the Division of General Health Services helps to stimulate research in public health practice

by State and local health departments, voluntary health agencies, and schools of public health. It is also the focal point within the Service for work on school health, rural health, and the health of agricultural migrant workers.

TRAINING

In 1959, the third year of the traineeship program under Title I of the Health Amendments Act, 654 persons received advanced training in public health—bringing the total for the 3-year period to 1,682. A National Conference on Public Health Training, called by the Surgeon General in July 1958 to evaluate the program and make recommendations to the Congress, endorsed the extension of the traineeship program to increase the supply of trained professional workers.

PUBLIC HEALTH EDUCATION

Through consultation, research, and training, the Public Health Education Branch assisted States and local health departments, units of the Public Health Service, educational institutions, and other organizations in developing health education programs designed to encourage desirable health habits. Consultants in health education are now stationed in 6 of the 8 regional offices of the Department.

The Branch also conducted or assisted in a number of behavioral science studies. During the year six studies were completed on a cooperative study of the effects of the Asian influenza epidemic on community life in five cities. Another study considered why people fail to seek vaccination for poliomyelitis. Current research includes studies on: (1) construction of a psychological instrument to measure people's health concerns; (2) factors affecting decisions to accept or reject free testing for cervical cancer; and (3) why people use or fail to use available free dental services.

Public Health Nursing

The Division of Public Health Nursing was established in August 1958, replacing the Public Health Nursing Branch of the Division of General Health Services.

Promotion of public health nursing services with special emphasis on expansion into the newer programs, such as chronic disease, was carried on through field consultation, teaching, and committee work.

Information on the distribution of visiting nurse associations in cities of 25,000 population and over was obtained as a basis for planning, with State and local health departments, for expansion of services to include nursing care of the sick.

A study to identify methods of documenting the results of public health nursing service to patients was initiated in one health depart-

ment in February 1959. Criteria were developed for evaluating nursing services in maternal and child health, and tuberculosis control programs; other programs will be included during 1960.

The Division also plays a major role in career development of public health nurses. It assisted in the assignment of 21 nurses, 6 of whom were new recruits.

Special Health Services

The Division of Special Health Services is the unit of the Service which works with State health agencies and other groups in developing programs related to personal health maintenance. The Division administers special programs in accident prevention, medical aspects of air pollution, occupational health, and control of cancer, heart disease, tuberculosis, and other chronic diseases.

CANCER CONTROL

The Cancer Control Program, created in the Division of Special Health Services a year ago, completed its organizational and staffing pattern during the year. Working with public health authorities and private physicians, the Cancer Control Program staff explored the potentialities for cancer control activities throughout the country. Formal conferences in six regional areas of the Department were attended by 217 physicians in private practice, public health, and voluntary agencies. Minimum standards were also developed for community services in cancer control work.

During the year, the Washington Cytology Unit—a demonstration and training unit in screening for cervical cancer—was transferred from the National Cancer Institute to the Cancer Control Program. In addition to screening Federal beneficiaries, the Program studied methods of increasing the number of medical technologists in this field and of improving laboratory techniques in the processing of slides.

HEART DISEASE CONTROL

The Heart Disease Control Program during 1959 contributed to the advances being made throughout the country against cardiovascular disease by: (1) helping apply current knowledge concerning heart disease, and (2) conducting community studies designed to learn more about the epidemiology and control of cardiovascular disease.

Responding to mounting requests from States for professional assistance in this field, the Program assigned 23 medical and nurse officers to 21 State and local health departments to stimulate and extend work in heart disease control.

Primary prevention of rheumatic fever—one of the most serious

and crippling diseases of childhood—may be a step closer through use of the fluorescent antibody technique in diagnosis. Validation tests of the new method, first step in the application of this research finding, were initiated by the Program in Colorado, North Dakota, and Montgomery County, Md.

To combat stroke, one of the major cardiovascular diseases of the older years, the Program promoted new and expanded stroke rehabilitation activities in various parts of the country, including demonstrations, clinics, outpatient and home care measures.

In an attempt to learn more about the contributing factors and causes of cardiovascular disease, States are conducting epidemiological studies with Program support. Cardiac-in-industry surveys, mobile cardiac diagnostic clinics for children, new case-finding techniques, and continued expansion of community studies in atherosclerosis are other examples of heart program activities.

CHRONIC DISEASE CONTROL

The number of State and Territorial health departments with active public health programs to prevent the occurrence of the disabling effects of chronic disease reached a new high during fiscal year 1959. Thirty-six health departments now have organized units responsible for diabetes casefinding and glaucoma detection, as well as community services and nursing care programs for the chronically ill and aging. Five years ago there were only 27 such units in the Nation.

Early detection of diabetes and glaucoma through individual and multiple screening methods which are now feasible continues to be emphasized by the Chronic Disease Program. A small, hand-operated diabetes blood-testing device was developed which enables small health departments to carry out a diabetes detection program.

Strike Back At Stroke, a booklet produced by the Chronic Disease Program as a guide to physicians in prescribing effective restorative treatment for stroke patients, received national acceptance. A number of programs are now under way to promote early mobilization of stroke patients, and medical schools are using the booklet for student instruction.

The first program undertaken by Federal, State, and local official and nonofficial agencies to bring needed restorative services to residents of rural communities was started in North Carolina.

Dental care for homebound chronically ill and disabled people was started by a New York City hospital as part of the Public Health Service's evaluation of a portable dental equipment kit enabling a dentist to give complete treatment at the bedside.

TUBERCULOSIS CONTROL

In fiscal year 1959, \$4 million was appropriated by Congress for tuberculosis grants to the States. In addition, the Tuberculosis Pro-

gram, by collecting, analyzing, and disseminating a wide variety of information, by assigning personnel to trouble spots, and by offering specialized consultation, aided the States in putting their resources against tuberculosis to good use.

Today tuberculosis patients spend less time in the hospital than they used to. Current recommendations are usually for six to eight months of hospitalization followed by several years of drug therapy; some patients receive all their treatment outside the hospital. The health department, therefore, now carries a major share of the responsibilities for the medical care of tuberculosis patients. Many health agencies, however, do not have adequate resources to provide the new services required. The provision of medical care for patients outside the hospital is the most pressing current problem in tuberculosis control, and much of the Tuberculosis Program's staff time is spent in helping State and local health agencies to improve their services to these patients.

Another difficulty in the changing situation is casefinding. As the number of people with tuberculosis declines, unknown cases are increasingly difficult to locate, and health departments must carefully select not only the populations to be screened but the screening techniques themselves. The Tuberculosis Program aided health departments in establishing priorities for their casefinding activities and in training nurses in tuberculin testing techniques. The program is also actively promoting the use of dual reading of screening films to increase yield and reduce radiation.

Casefinding has been further complicated by the discovery of the so-called "atypical" mycobacteria which cause cross reactions to tuberculin. The Program played a major role in investigating these organisms and in conducting research on their epidemiology. Other operational research conducted by the Program is concerned with the evaluation of various drug regimens in tuberculosis therapy and with the evaluation of the prophylactic effects of isoniazid.

OCCUPATIONAL HEALTH

To help safeguard the health of American workers, the Occupational Health Program carries out field studies, laboratory research, technical assistance, and training.

A major study in the Federal Prison Industries seeks to develop standards for the control of noise. Recent findings show that workers with less than 6 months' noise exposure almost completely recovered their hearing acuity, following temporary removal from the noise. Recovery was less complete in workers having over one year of noise exposure.

The medical phase of the continuing, joint Public Health Service-U.S. Bureau of Mines study in metal mines completed its first year,

with examinations of 3,000 workers in 8 Western mines. Preliminary findings reveal a surprising occurrence of pneumoconiosis in men with relatively short periods of exposure to silica dust, despite the general availability of control measures. The study will yield valuable clues as to why silicosis persists as the leading occupational disease, in terms of disability and compensation cost.

A long-term study points to a possible occupational factor in deaths of uranium miners. Of approximately 80 deaths, 6 were caused by lung cancer.

To assist in the detection of occupational diseases, work is under way to develop more rapid and efficient analytic procedures. As the result of a need demonstrated by a study of the phosphate industry, a rapid, simple procedure was developed for the separation of fluoride from fresh urine samples by an ion exchange method. The new procedure will permit a tenfold increase in the number of analyses performed within a unit of time. It can be readily performed in an industrial plant laboratory.

Emergency and special consultative services included studies ranging from toxic and allergenic properties of Haitian voodoo dolls to outbreaks of illness among dock workers handling castor bean pomace used in fertilizer. To help meet personnel training needs of public health agencies, 18 training courses and 6 technical seminars were presented, attended by 665 persons.

AIR POLLUTION MEDICAL PROGRAM

During the year, the Air Pollution Medical Program was reorganized to deal with the growing problems arising from air pollution. New sections were created to conduct laboratory investigations and community studies in this field.

Laboratory studies are under way on the biochemical effects of air pollution, the physiological effects of air pollution upon animals, and the effects of long-term exposures of plants, animals, and human beings to irradiated auto exhaust components. Community studies include the physiological effects of air pollution upon man, the possible causation or aggravation of chronic disease, and the possible relationship between air pollution and other environmental influences.

The National Conference on Air Pollution, conducted in cooperation with the Air Pollution Engineering Program in November, 1958, was attended by more than 1,000 representatives of industry, State and local governmental agencies, universities and research organizations. In addition to focusing public attention on air pollution problems, the Conference adopted resolutions which outline necessary research and control objectives for the immediate future. Increased emphasis on automobile exhaust studies and improved application of presently known control methods were among the Conference recommendations.

ACCIDENT PREVENTION

During the year, the Accident Prevention Program continued to develop plans and techniques designed to help State and local health agencies reduce accidental injuries and deaths. Emphasis was given to traffic safety and the prevention of home accidents. The Program also conducted epidemiological studies of accidental fires and explosions and of accidents among children and older persons.

The number of local poison control centers continued to grow. There are now 289 such centers throughout the country, compared to 158 a year ago. These centers help control accidental poisoning by providing, primarily to physicians, a quick source of up-to-date information on the ingredients, toxicity, and recommended treatment of poisoning by potentially hazardous products. Through the National Clearinghouse for Poison Control Centers, maintained by the Public Health Service to coordinate this effort, information about new poisons encountered by any of the local centers is made available to all other centers.

There was widespread concern during the year about the increase in alleged accidental suffocations among children caused by plastic garment bags. Since January 1, 1959, 49 such incidents were reported to the Accident Prevention Program. Investigation revealed that most of the deaths were associated with the use of the plastic bags as bedding for small infants. A few suffocations were also caused by use of the bags as toys and playthings. An intensive educational campaign directed toward parents was launched by the plastic bag and dry cleaning industries, in cooperation with the Public Health Service and professional organizations, to prevent these needless fatalities.

A study by Cornell University has shown that the use of seat belts in automobiles substantially reduces the risk of accidental death and the severity of injury from crashes. During the year, the Accident Prevention Program launched, in cooperation with the National Safety Council and the American Medical Association, a national campaign to encourage widespread use of automobile seat belts.

Radiological Health

The Division of Radiological Health, now in its second year of operation, grew in response to the increasing importance of radiation as a public health problem. In fiscal year 1959, the Division operated on a budget of \$634,000 compared to \$393,000 a year ago. There was a corresponding expansion in program activities.

The Division helps State and local health departments to start and maintain radiological health programs and develops public health

measures to reduce exposure from radiation-producing devices in medicine, industry, and other sources. It conducts research, including the accumulating epidemiological data on long-term effects of radiation on human beings. In addition, the Division monitors weapons testing; maintains surveillance of radiation levels in air, water, milk; and conducts training for health personnel in various aspects of radiological health.

In April 1959, the Surgeon General called a radiological health conference to review current developments in radiological health with the State and Territorial Health Officers, representatives of the Food and Drug Administration, the Children's Bureau, the Atomic Energy Commission, and members of the National Advisory Committee on Radiation. Discussions centered on emerging problems and trends in this field. The group considered Federal-State relationships in radiological health, medical X-ray protection, radiological training and research, standards relating to environmental contamination with radioactive materials, and legislative and regulatory aspects of radiological health. Finally, there was an evaluation of the needs of the States in developing and implementing radiological health programs.

During the year, the Division completed an inventory of the radiological health programs in 32 States. At the request of the Florida State Health Department, a team of PHS scientists assisted in setting up a project to survey diagnostic medical X-ray sources in Dade County, Fla. It was hoped that this project would also serve as a demonstration of the techniques of measuring radiation that may be applicable to other areas in the United States.

Under an agreement with Joint Task Force 7 and the Atomic Energy Commission, the Service continued to carry out its radiological off-site monitoring activities during weapons testing (Operation HARDTACK, Phase I and II) at the Pacific Proving Grounds and at the AEC Nevada Test Site, respectively.

Cooperation in radiological health and safety activities was continued with the Maritime Administration on its nuclear powered merchant ship program and with the Navy on its Nuclear Propulsion Program. In each case, a Public Health Service team is assigned to the agency to assist in developing radiological safety practices.

The Public Health Service, in cooperation with the Atomic Energy Commission, initiated a joint study of radiological protection and surveillance programs appropriate to the various types of reactors under development at the National Reactor Test Site (NRTS) at Idaho Falls, Idaho.

The Service initiated a study of biological samples collected in the vicinity of the Nevada Test Site to determine body burdens of radioactivity and to obtain related radio-epidemiological data. Radio-

chemical analyses of samples are made by the radiological health research staff at the Robert A. Taft Sanitary Engineering Center.

During fiscal year 1959, 15 training courses in radiological health were presented at the Sanitary Engineering Center. About 450 people attended these courses, including representatives of State and local health departments, industry, and Federal agencies.

Engineering Services

The Division of Engineering Services works with State and local health departments, industry, and other groups on health problems associated with the modern environment. Division programs include the engineering aspects of air pollution, milk and food sanitation, the sanitation of interstate carriers, and advanced professional training in sanitary engineering.

ROBERT A. TAFT SANITARY ENGINEERING CENTER

The Robert A. Taft Sanitary Engineering Center, Cincinnati, Ohio, is the Nation's primary facility for research, technical assistance, and training in the following fields: air pollution, water supply and pollution, milk and food sanitation, and radiological health. Research is conducted through the staff operations at the Center. The training program offers a wide variety of resident and field training courses for scientific and administrative personnel engaged in sanitary engineering work.

ENGINEERING RESOURCES

The Division works to increase the supply, improve the utilization and develop the professional status of sanitary engineers and related personnel. This is done through inservice training, traineeships, research fellowships and research grants, and through close liaison with universities and professional and technical organizations. In cooperation with the National Science Foundation and the Conference of State Sanitary Engineers, work continued on a roster of sanitary engineering manpower in the United States.

GENERAL ENGINEERING

Special citations were awarded to 19 vessel companies and 8 railroads for meeting Public Health Service criteria on all operating units. Increased attention was given to sanitation problems created by the introduction of jet aircraft on commercial airlines. Major modification and expansion of servicing facilities are involved. Some 162 of 168 aircraft constructed were given Certificates of Sanitary Construction. Vessel construction continued at a high level, with 41 of 55 new or reconstructed vessels qualifying for such certificates.

Surveillance was maintained on interstate railroads and buses.

One major outbreak of food poisoning aboard a carrier was investigated.

The Division worked with the American Public Works Association in the preparation of a textbook on *Refuse Collection Practice*. Also under preparation is a companion text on disposal practice.

During the year, the Division compiled material for a manual designed to evaluate environmental health problems in urban and metropolitan areas. Cooperative projects were begun with several national organizations interested in metropolitan area planning.

MILK AND FOOD SANITATION

A recommended sanitation ordinance and code which establishes standards for Grade A dry milk used in the commercial preparation of fluid milk products was issued.

The Public Health Service makes monthly analyses of milk samples from 12 milksheds of the Nation for the presence of radioactivity. The yearly averages for radioisotopes in the samples collected remained below the permissible concentrations published by the National Committee on Radiation Protection and Measurement.

Participation in the Cooperative State-PHS Program for Certification of Interstate Milk Shippers continued to increase for the ninth consecutive year.

Studies were initiated at SEC to determine ecological factors in the prevention of foodborne disease.

Model ordinance provisions on inspection of poultry were distributed to the States, and a related manual was published jointly with the Food and Drug Administration.

The Service continued to participate with the States, the shellfish industry, and the Government of Canada in the voluntary program for the certification of interstate shippers of fresh or frozen oysters, clams and mussels. The Public Health Service Shellfish Sanitation Laboratory was moved from Florida to the State of Washington where a long-range study of the bacteriological properties of West Coast shellfish will be undertaken in cooperation with the Washington State Department of Health.

AIR POLLUTION ENGINEERING PROGRAM

Established after the National Conference on Air Pollution, at the request of the Secretary of Health, Education, and Welfare, an ad hoc Committee on National Goals for Air Pollution Research is currently completing a report which will recommend desirable levels of support for air pollution research by government, industry, universities and other groups.

Major emphasis in research centered on the auto exhaust problem. A joint Engineering-Medical auto exhaust study unit, established at

the Sanitary Engineering Center, will permit more precise research in this area than has heretofore been possible.

Significant projects completed included improvements in instruments for air pollution sampling and analysis, including the development of a portable particle counter and size analyzer for field use. Full-scale field operations were carried out during a detailed study of community air pollution in Nashville, Tennessee.

Progress has been realized on work concerning chemical and physical methods for air pollution analysis. Multiple gas samplers, developed by the Program to fill an important gap in knowledge of air pollution, have been put into limited field use for evaluation.

A new time-saving method has been developed for the analysis of polycyclic hydrocarbons which will greatly facilitate study of the carcinogenicity of air pollutants.

In cooperation with the National Cancer Institute and the University of Southern California Medical School, a special air sampling program for carcinogens was continued.

Water Supply and Pollution Control

A separate Division of Water Supply and Pollution Control was created on April 1, 1959, reflecting intensified efforts in these environmental health fields.

An agreement between the Department of the Army and the Department of Health, Education, and Welfare calls for assistance to the Army Engineers in determining supply, demand and economic value of municipal and industrial water supplies from reservoirs authorized by the Water Supply Act of 1958. A joint public-government Advisory Committee was appointed to revise the United States Public Health Service Drinking Water Standards, with special attention to setting limits for radionuclides and synthetic organics and other chemicals.

Studies were begun to determine pollution effects of large-scale use of agricultural insecticides in the Southeastern States. In the Southwest, field operations were readied to pinpoint and block off or divert sources of manmade and natural salt pollution of the Arkansas and Red Rivers to make the flow of the rivers available for domestic and industrial uses. Other major areas of attention included the Lake Michigan diversion problem, the international outfall sewer on the California-Mexico Border, and ground-water pollution near the Rocky Mountain Arsenal near Denver.

A 52-station Water Quality Network was established, resulting in the first long-range, continuous study of pollution of the major interstate waters of the Nation, including radioactive pollution. Regular

announcements of radiation levels of the waters were issued. Research at the Sanitary Engineering Center and other field investigations were concentrated on problems created by manufacture of hundreds of new chemicals and synthetic products.

As of June 30, 1959, Federal grants under Public Law 660 in the amount of \$131.6 million had been made to 1,583 communities in support of sewage treatment works construction totaling \$685 million. There were 545 construction grants made in fiscal year 1959, totaling \$46 million, as compared with 592 in 1958 totaling \$47 million, and 446 in 1957 totaling \$38 million. This 3-year total of 1,583 projects will provide adequate treatment for municipal wastes equivalent to a population of approximately 25 million, and reduce municipal pollution in an estimated 19,000 miles of streams. Of the 1,583 grants made, 97 percent was for communities of less than 125,000 population. Increasing impetus was given during the year to enforcement procedures under the water pollution control law. These involve, (1) round-table conferences to map out problem areas and remedial measures; (2) a formal cease-and-desist hearing should the round-table method fail; and (3) possible court action. By July 1, 1959, there had been 10 conferences and two hearings involving eight major waterways, 215 industrial establishments, 83 municipalities, and 1,553 miles of watercourses. Estimated cost of sewage treatment facilities to remedy pollution in areas where enforcement action has been taken exceeds a half billion dollars.

The first Federal enforcement action to control contamination of interstate waterways by radioactive wastes resulted in a voluntary action by the Vanadium Corporation of America to prevent radium from its Durango, Colo., operations from discharging into the Animas River.

Communicable Disease Center

The Communicable Disease Center, located in Atlanta, Ga., with laboratories and field stations in various parts of the United States, is the specialized national resource for the prevention and control of infectious diseases. The Center carries out extensive epidemiological, field, and laboratory studies, coordinates communicable disease activities, and provides technical assistance to the States.

Through representation on World Health Organization expert advisory panels and committees, the center participates in worldwide programs for the eradication or amelioration of many diseases. Its laboratories function as the national, regional, and sometimes the international, diagnostic center.

CDC gave epidemic aid in 44 instances, involving 22 different dis-

eases. Ten of these requests involved vector control following epidemics or disasters in 8 States.

REPRESENTATIVE FIELD AND LABORATORY STUDIES

Venereal diseases.—The upward trend in the incidence of primary and secondary syphilis in the United States accelerated, with 8,000 reported cases reflecting an increase of 20 percent over 1958. More than one-fifth of all reported cases of infectious venereal disease occurred in persons 19 years of age and younger. In general, increased incidence of venereal disease was higher in urban areas.

Federal funds of \$2.5 million supported 89 venereal disease projects in 41 States, Puerto Rico, and the Virgin Islands. Other assistance included the assignment to States of 1 nurse, 15 physicians, and 274 paramedical personnel.

A fluorescent antibody method was developed at CDC for diagnosis of gonorrhea in males and possibly in females, and the plasmacrit test proved practical in screening for syphilis. Results from an evaluation program, with 15 laboratories participating, indicate that the best testing procedure for syphilis should include a good nontreponemal test supplemented by the treponemal Reiter-protein-antigen test. A standard VD epidemiologic report form developed by the Center was adopted by 35 States and the Armed Forces.

Because venereal diseases are rising, training in control activities is a vital part of the national program. More than 1,800 interviewers were trained in permanent schools, in the mobile school, and in the Mahoney Training Center for Nurses. An additional 547 persons were trained in laboratory courses in Atlanta and in field workshops.

Staphylococcal disease.—Following the first National Conference on Hospital-Acquired Staphylococcal Disease, sponsored jointly by the Public Health Service and the National Academy of Sciences and held in Atlanta in September 1958, a series of conferences were held for key health groups in each of the regions of the Department of Health, Education, and Welfare. In a number of subsequent State-wide meetings, responsible individuals and organizations were alerted to the problem and apprised of the services and information available to them. Most States have now inaugurated staphylococcal control programs. Cooperative investigations were initiated to establish and evaluate surveillance and control techniques in individual hospitals of various sizes, among groups of hospitals, and in the community.

Another national conference on the relation of the environment to hospital-acquired staphylococcal infections revealed that the role of environmental factors is poorly understood. Emphasis was placed on the immediate application of known sanitation measures and studies are being directed toward the acquisition of new knowledge and the development and perfection of improved techniques.

In the diagnostic area, CDC is serving as a National Reference Center for Staphylococcus Phage Typing.

Poliomyelitis and aseptic Meningitis.—More paralytic polio was reported in 1958 than in 1957, despite the decreasing trend in total reported cases since 1955. The greatest occurrence of disease was in the youngest group of unvaccinated children, often non-white, in the lower socioeconomic group. There was no break in vaccine safety.

At CDC, a rapid survey procedure was developed to provide data on the extent of poliomyelitis vaccination among urban populations and was adapted to local health department use. Surveys in 38 widely scattered cities showed the proportion of adequately immunized persons to be least in low socioeconomic areas and greatest among school children between the ages of 5 to 14. Many local health departments opened community campaigns to eliminate soft spots in the immunization picture.

The laboratory diagnostic program within the States was reinforced through direct support in the form of funds, reagents, training, and consultation. Contract laboratories also attempted isolation of virus from cases with aseptic meningitis so that a constant sampling of the active viruses was available to CDC from scattered areas.

Encephalitis (arthropod-borne).—CDC assisted in 3 epidemics, the largest an outbreak of Western encephalitis with 47 human and 191 equine cases. This disease was widely distributed in the West, particularly in irrigated areas. St. Louis encephalitis was prevalent in the Central States but not in the sharp localized outbreaks typical of recent years. No human cases of Eastern encephalitis were seen, and there was only 1 equine case. Principal concern in CDC's studies is to determine the ecologic factors responsible for persistence of these diseases and to devise ways for preventing or curtailing outbreaks.

Rabies.—Wildlife rabies studies were conducted in the Southeast, Southwest, and in the newly established Midwest Rabies Investigation Station at Poynette, Wis. As control programs continue to reduce the urban rabies problem in dogs, measures are being sought to reduce the large wildlife reservoir of infection in skunks, foxes, and bats.

Respiratory diseases.—CDC continued as the World Health Organization International Influenza Center for the Americas, correlating the work of its own and other participating diagnostic laboratories. In the face of widespread infections of influenza B virus in Europe and the threat of its international spread, the Center alerted all collaborating laboratories and obtained representative isolates for strain studies. Evaluation of reagents already distributed showed them suitable for the present outbreak. Most of the virus isolates submitted for study were found to be closely related either to the Asian

strain or to the B strain prevalent in Europe. Evidence of type B infections was seen in 26 States and Asian in 8.

Enteric infections.—Over 600 cases of acute diarrhea in the Phoenix, Ariz., area have been studied exhaustively. Shigella organisms were isolated from about one-fourth of the cases and enteropathogenic *Escherichia coli* from another one-fourth. Available methods failed to isolate pathogens from nearly one-half of the cases. A serologic method for identifying healthy carriers of the typhoid agent was developed and used successfully.

Plague.—CDC assisted in investigating 3 cases of human bubonic plague, 1 of which was fatal, that occurred in the West during the late spring and early summer of 1959. Wild rodent plague is endemic in 15 Western States, and the cases apparently resulted from contact with infected wild rodents or their fleas.

Schistosomiasis.—A multifactor approach to the control of schistosomiasis involving a coordinated program of water supply improvement, domestic sanitation, snail destruction, limited chemotherapy, and health education is proving effective in heavily endemic areas in Puerto Rico. A predator snail is eliminating the molluscan intermediate host of *Schistosoma mansoni* in certain areas.

VECTOR CONTROL

When dusted directly on human volunteers, the organic phosphorus insecticide malathion was found safe and effective against body lice resistant to the chlorinated hydrocarbon insecticides currently used for louse control throughout the world. In cooperative tests with the Pan-American Sanitary Bureau and the International Cooperation Administration in El Salvador, residual deposits of malathion have given excellent results against dieldrin- and DDT-resistant *Anopheles albimanus*, an important mosquito vector of malaria.

Preliminary tests indicate that the vapors from small closed bags of DDVP, the organic phosphorus insecticide developed by CDC, will kill malaria mosquitoes in ventilated huts for 1 to 2 months. This residual fumigation technique is a new, potentially revolutionary approach for eradicating malaria and other vector-borne diseases.

LABORATORY SERVICES AND NEW TECHNIQUES

Approximately 55,000 specimens were referred to the CDC laboratories by State and local health departments, Federal agencies, research groups, and foreign countries.

The Center produced and distributed, in addition to the amounts required in its own programs, some 767,000 milliliters of diagnostic reagents and 7,800 shipment-lots of tissue cultures.

Outstanding among further applications of the fluorescent antibody (FA) method were work on rabies, infantile diarrhea, streptococcal infections, and arthropod-borne viruses. The fluores-

cence-inhibition test, an advanced application previously worked out for toxoplasmosis, is under study as a serologic test for amebiasis.

TRAINING

Over 4,500 persons from State and local health departments, Federal agencies, academic institutions, industry, and numerous organizations, and an additional 165 individuals from other countries, received organized training from CDC in various aspects of communicable disease control.

Dental Public Health

The Division of Dental Public Health is concerned with the field testing and application of methods for the prevention and control of dental diseases.

It provided assistance to State and local health departments in such fields as the fluoridation of public water supplies, in-service training, recruitment of personnel, administration of dental health programs, planning and conducting field studies on topical fluoride applications, dental care for the chronically ill and aged, community dental clinics, behavioral problems associated with the prevention and treatment of dental diseases, and periodontal diseases.

Of the 118 million people in the United States using central water supplies, 35.6 million in 1,814 communities, or about one person in every three, were using water containing fluoride added by municipalities during fiscal 1959. In fiscal year 1958, 34.5 million people in 1,709 places drank fluoridated water. In addition, 1,903 communities with a population of 7 million people use naturally fluoridated water.

A study was begun in Pennsylvania to determine the effects of fluoridating school water supplies in the prevention of dental cavities. Studies in Georgia and Virginia were started to measure the effectiveness of various concentrations of stannous fluoride applied to the teeth of school children.

In Pennsylvania, a study was initiated to provide data for use in developing an apparatus to automatically feed the proper amount of fluoride into water supplies and to show continuously the fluoride concentration maintained. Another engineering study was started in Illinois to further refine the procedure for using calcium fluorspar, the cheapest of all fluoride compounds, as a fluoridating agent.

In New York, a social-psychological study was begun to explore some of the causes of the use and non-use of dental facilities.

International Health

Through the Division of International Health, the Public Health Service contributes to the advancement of world health through

participation in activities of international health organizations, by providing program and policy guidance to the Department of State on international health matters, by administering education and training services in health and medicine for U.S. Government and International agencies, and by providing technical aid to the International Cooperation Administration and its overseas missions.

During the year ending June 30, 1959 there was increased interest in the United States in international health activities, marked by introduction of a number of pieces of legislation, including a proposal for an International Health and Medical Research Year and one for establishment of a National Institute for International Health and Medical Research. This interest by the Congress and the Administration in international health activities led to a reappraisal of the role of the Public Health Service in international health and brought about the establishment of the position of Assistant to the Surgeon General for International Health. The expansion of the activities of the Division necessitated the transfer of four medical officers and two sanitary engineers from foreign or domestic assignments to the Division staff.

The emphasis on international health during the period under review was reflected in the Service's participation in the work of international organizations in health and related fields. The Surgeon General again served as Chairman of the U.S. Delegation to the World Health Assembly, and other officers served on official delegations to the governing bodies of WHO, the Pan American Health Organization, and the South Pacific Commission. Through the Division of International Health, the Service assisted the Department of State in developing United States policy on international health questions which come before these and other international organizations whose activities include health programs, such as the United Nations Children's Fund, the Food and Agriculture Organization, and the International Labor Organization.

Public Health Service personnel also served international health organizations in an advisory capacity in their technical specialties. During this reporting period, 75 Service staff members served on WHO expert panels in 36 health fields and the Service granted frequent requests for short-term assignments of its officers as technical advisers to the World Health Organization and the Pan American Health Organization. In addition, 140 Public Health Service commissioned officers were assigned to ICA for service abroad, providing technical assistance to health administrations of foreign countries.

The Division arranged and supervised training programs in the United States for 644 foreign health workers from 75 countries during the period under review. These trainees—doctors, nurses, sanitary engineers, public health administrators, among others—were trained

in United States schools of public health, nursing or engineering, or placed in in-service training at hospitals and laboratories, depending upon the objectives of their training programs.

Through this Division the Service played an active role in the exchange of public health missions between the Soviet Union and the United States. Reciprocal missions in biochemistry, endocrinology, the physiology and pharmacology of the central nervous system, and antibiotics were exchanged during the year ending June 30, 1959. During this period, the Division's International Epidemiology Program completed health studies of Libya, Brazil, Israel, Greece and Ireland, making a total of 17 epidemiological surveys completed under this program, which began in 1956.

Table 1.—Statement of appropriations, authorizations, and obligations, fiscal year 1959

[In thousands]

| Appropriations | Funds available for obligation | | | | Total funds available | Amounts obligated |
|---|-----------------------------------|--------------------------------------|-------------------------|---------------------------------|-----------------------|-------------------|
| | Appropriations and authorizations | Net transfers between appropriations | Repayments for services | Prior year unobligated balances | | |
| Total..... | \$755,846 | \$1,080 | \$30,482 | \$99,203 | \$894,178 | \$752,396 |
| Appropriations, PHS..... | 755,693 | 1,080 | 30,482 | 99,060 | 886,315 | 745,745 |
| Control of tuberculosis..... | 6,386 | 115 | 22 | ----- | 6,523 | 6,510 |
| Control of venereal diseases..... | 5,400 | ----- | ----- | ----- | 5,400 | 5,386 |
| Assistance to States, general..... | 23,639 | ----- | 338 | ----- | 23,977 | 23,846 |
| Communicable disease activities..... | 6,890 | ----- | 379 | ----- | 7,269 | 7,258 |
| Grants and special studies, Territory of Alaska..... | 2,165 | 23 | 27 | ----- | 2,215 | 2,213 |
| Sanitary engineering activities..... | 12,789 | 441 | 1,166 | ----- | 14,396 | 14,207 |
| Foreign quarantine activities..... | 4,348 | ----- | 278 | ----- | 4,626 | 4,616 |
| Construction, mental health facilities, Territory of Alaska..... | 6,500 | ----- | ----- | ----- | 6,500 | ----- |
| Equipment, communicable disease center..... | 1,700 | ----- | ----- | ----- | 1,700 | 908 |
| Hospitals and medical care..... | 50,474 | ----- | 4,909 | ----- | 55,383 | 55,286 |
| Dependents' medical care..... | 384 | ----- | ----- | ----- | 384 | 382 |
| Salaries and expenses, hospital construction services..... | 1,600 | 35 | ----- | ----- | 1,635 | 1,626 |
| Indian health activities..... | 42,169 | ----- | 727 | 1,510 | 43,406 | 42,359 |
| Construction of Indian health facilities (1959-60)..... | 4,124 | ----- | ----- | ----- | 4,124 | 2,018 |
| Construction of Indian health facilities (1958-59)..... | ----- | ----- | ----- | 2,490 | 2,490 | 2,331 |
| Construction of Indian health facilities (no year)..... | 1,886 | ----- | ----- | 7,637 | 9,523 | 8,422 |
| Grants for hospital construction (1959-60)..... | 186,200 | ----- | ----- | ----- | 186,200 | 90,472 |
| Grants for hospital construction (1958-59)..... | ----- | ----- | ----- | 76,337 | 76,337 | 75,562 |
| General research and services, National Institutes of Health..... | 28,974 | ----- | ----- | ----- | 28,974 | 28,957 |
| National Cancer Institute..... | 75,268 | ----- | 11 | ----- | 75,279 | 69,409 |
| Mental health activities..... | 52,419 | ----- | 42 | ----- | 52,461 | 49,931 |
| National Heart Institute..... | 45,613 | ----- | ----- | ----- | 45,613 | 45,468 |
| Dental health activities..... | 7,420 | ----- | 1 | ----- | 7,421 | 7,406 |
| Buildings and facilities, Cincinnati, Ohio..... | ----- | ----- | ----- | 11 | 11 | 6 |
| Arthritis and metabolic disease activities..... | 31,215 | ----- | 358 | ----- | 31,573 | 31,484 |
| Allergy and infectious disease activities..... | 24,071 | ----- | 5 | ----- | 24,076 | 24,044 |
| Neurology and blindness activities..... | 29,403 | ----- | ----- | ----- | 29,403 | 29,033 |
| Operations, National Library of Medicine..... | 1,415 | 111 | 11 | ----- | 1,537 | 1,533 |
| Construction of library facilities..... | 6,975 | ----- | ----- | ----- | 6,975 | 4,734 |
| Grants for waste treatment works construction (1959-60)..... | 45,000 | ----- | ----- | ----- | 45,000 | 36,558 |
| Grants for waste treatment works construction (1957-60)..... | 657 | ----- | ----- | 9,670 | 10,327 | 9,670 |

¹ Liquidation of contract authorization obligated in 1958 fiscal year.

Table 1.—Statement of appropriations, authorizations, and obligations, fiscal year 1959—Continued

[In thousands]

| Appropriations | Funds available for obligation | | | | Total funds available | Amounts obligated |
|---|-----------------------------------|--------------------------------------|-------------------------|---------------------------------|-----------------------|-------------------|
| | Appropriations and authorizations | Net transfers between appropriations | Repayments for services | Prior year unobligated balances | | |
| Construction of Biologics Standards Laboratory Building..... | | | | \$598 | \$598 | \$544 |
| Construction of surgical facilities..... | \$335 | | | 1,548 | 1,883 | 1,575 |
| Construction of Dental Research Building..... | 3,700 | | | | 3,700 | 2,507 |
| Grants for construction of health research facilities..... | 30,000 | | | | 30,000 | 29,960 |
| Construction of animal quarters..... | | | | 154 | 154 | |
| General office building..... | 9,687 | | | | 9,687 | 135 |
| Construction of research facilities..... | | | | 105 | 105 | 1 |
| Retired pay of commissioned officers..... | 1,627 | ² —\$51 | | | 1,576 | 1,576 |
| Salaries and expenses..... | 5,260 | 406 | \$55 | | 5,721 | 5,703 |
| National Institutes of Health management fund..... | | | 22,153 | | 22,153 | 22,109 |
| Appropriations, special project funds made available by other agencies..... | | | | | 7,567 | 6,529 |
| Salaries and expenses, Bureau of Prisons (transfer to HEW, PHS)..... | | | | | 1,921 | 1,920 |
| American Sections, International Commissions, State (transfer to HEW, PHS)..... | | | | | 70 | 69 |
| Salaries and expenses, Office of Civil and Defense Mobilization (transfer to HEW, PHS)..... | | | | | 170 | 170 |
| Research and development, Office of Civil and Defense Mobilization (transfer to HEW, PHS)..... | | | | | 356 | 120 |
| Farm labor supply revolving fund, Bureau of Employment Security (transfer to HEW, PHS)..... | | | | | 651 | 616 |
| General administrative expenses, section 411, Mutual Security Act, executive (transfer to HEW)..... | | | | | 51 | 49 |
| Special assistance in joint control areas in Europe, executive (transfer to HEW)..... | | | | | 3 | 3 |
| Technical cooperation, general executive (transfer to HEW) (annual)..... | | | | | 2,132 | 1,956 |
| Technical cooperation, general executive (transfer to HEW) (no year)..... | | | | | 1,734 | 1,166 |
| Defense support, general executive (transfer to HEW)..... | | | | | 312 | 298 |
| Special assistance, general, executive (transfer to HEW)..... | | | | | 153 | 148 |
| Salaries and expenses, Office of Civil and Defense Mobilization (transfer to HEW, Office of Secretary)..... | | | | | 14 | 1 |
| Gift funds donated for general and specific purposes..... | 152.9 | | | 143.4 | 296.3 | 122.4 |
| Patients' benefit fund, Public Health Service hospitals..... | 37.3 | | | 15.3 | 52.6 | 32.1 |
| Public Health Service unconditional gift fund..... | 27.3 | | | 46.1 | 73.4 | 15.6 |
| Public Health Service conditional gift fund..... | 88.3 | | | 82.0 | 170.3 | 74.7 |

² Adjusted by Treasury warrant.

Table 2.—Commissioned officers and civil service personnel as of June 30, 1959

| | Full time | | | | Part time | | | | |
|--|-----------------------|------------------------|---------------|------------------------------|-----------|-------------------------|-----------------------|-------|-----------------------|
| | Grand total full time | Commis-sioned officers | Civil Service | | | Total actually employed | Without compen-sation | Other | |
| | | | Total | Washington metropolitan area | States | | | | Outside United States |
| Public Health Service..... | 25,050 | 13,586 | 21,464 | 9,134 | 12,176 | 154 | 1,310 | 192 | 368 |
| Office of the Surgeon General..... | 597 | 46 | 551 | 510 | 41 | | 26 | 7 | 7 |
| Immediate Office of the Surgeon General..... | | | | | | | | | |
| Division of Finance..... | 28 | 8 | 20 | 20 | | | 6 | 6 | |
| Division of Administrative Services..... | 131 | | 131 | 129 | 2 | | | | |
| Division of Personnel..... | 139 | 9 | 130 | 94 | 36 | | 1 | 1 | |
| Division of Public Health Methods..... | 140 | 16 | 124 | 124 | | | 6 | | 6 |
| Offices other than divisions (Emergency Plans and Requirements Information, and, Executive)..... | 110 | 3 | 107 | 104 | 3 | | 12 | 5 | 6 |
| Details to other agencies..... | 40 | 1 | 39 | 39 | | | 1 | 1 | 1 |
| | 9 | 9 | | | | | | | |
| Bureau of Medical Services..... | 12,800 | 1,702 | 11,098 | 1,350 | 9,652 | 96 | 683 | 438 | 200 |
| Office of the Chief..... | | | | | | | | | |
| Division of Dental Resources..... | 30 | 3 | 27 | 27 | | | 1 | 1 | |
| Division of Foreign Quarantine..... | 22 | 5 | 17 | 17 | | | 61 | 61 | |
| Division of Hospitals and Medical Facilities..... | 585 | 48 | 537 | 31 | 429 | 77 | 34 | 18 | 10 |
| Division of Hospitals..... | 113 | 11 | 102 | 100 | 2 | | 8 | 8 | |
| Division of Hospitals..... | 6,326 | 1,032 | 5,294 | 219 | 5,056 | 19 | 354 | 242 | 95 |
| Freedmen's Hospital..... | 797 | | 797 | | | | 38 | 10 | 28 |
| Division of Indian Health..... | 4,549 | 396 | 4,153 | 112 | 4,041 | | 187 | 108 | 67 |
| Division of Nursing Resources..... | 50 | 12 | 38 | 38 | | | | | |
| Details to other Agencies..... | 328 | 195 | 133 | 9 | 124 | | | | |
| | | | | | | | | | |
| Bureau of State Services..... | 4,066 | 1,023 | 3,043 | 1,007 | 2,025 | 11 | 281 | 119 | 39 |
| Office of the Chief..... | | | | | | | | | |
| Communicable Disease Center..... | 115 | 7 | 108 | 108 | | | 13 | 11 | 1 |
| Division of Dental Public Health..... | 1,195 | 229 | 966 | 5 | 957 | 4 | 69 | 24 | 5 |
| Division of General Health Services..... | 58 | 19 | 39 | 38 | 1 | | 8 | 5 | 3 |
| Division of International Health..... | 375 | 31 | 344 | 286 | 58 | | 75 | 24 | 1 |
| Division of Radiological Health..... | 71 | 12 | 59 | 59 | | | 2 | 1 | 1 |
| Division of Engineering Services..... | 133 | 62 | 71 | 31 | 40 | | 4 | 1 | 3 |
| Division of Special Health Services..... | 577 | 121 | 456 | 117 | 339 | 45 | 45 | 5 | 9 |
| Division of Public Health Nursing..... | 608 | 154 | 454 | 323 | 124 | 7 | 61 | 38 | 12 |
| Division of Health Mobilization..... | 16 | 9 | 7 | 7 | | | | | |
| Division of Water Pollution Control..... | 16 | 5 | 11 | 11 | | | | | |
| Regional Offices..... | 39 | 23 | 16 | 15 | 1 | | | | |
| Details to other Agencies..... | 704 | 192 | 512 | 7 | 505 | | 4 | | 4 |
| | 159 | 159 | | | | | | | |
| National Institutes of Health..... | 7,373 | 815 | 6,558 | 6,062 | 449 | 47 | 318 | 181 | 17 |
| | | | | | | | | | 120 |

| | | | | | | | | |
|---|-------|-----|-------|-------|-----|----|----|----|
| Office of the Director | 49 | 7 | 42 | 42 | 178 | 1 | 1 | 1 |
| National Cancer Institute | 1,092 | 174 | 918 | 740 | 45 | 21 | 2 | 22 |
| National Heart Institute | 500 | 103 | 397 | 318 | 79 | 12 | 12 | 17 |
| National Institute of Allergy and Infectious Diseases | 529 | 93 | 436 | 266 | 146 | 12 | 2 | 2 |
| National Institute of Arthritis and Metabolic Diseases | 439 | 89 | 350 | 348 | 2 | 30 | 3 | 1 |
| National Institute of Dental Research | 131 | 29 | 102 | 101 | 1 | 4 | 2 | 2 |
| National Institute of Mental Health | 623 | 83 | 540 | 497 | 43 | 28 | 2 | 26 |
| National Institute of Neurological Diseases and Blindness | 323 | 38 | 285 | 263 | 22 | 18 | 2 | 2 |
| Clinical Center | 1,544 | 126 | 1,418 | 1,418 | 73 | 37 | 6 | 30 |
| Division of Biologics Standards | 190 | 22 | 168 | 168 | 3 | 1 | 1 | 1 |
| Division of Business Operations | 749 | 11 | 748 | 748 | 4 | 12 | 4 | 4 |
| Division of Research Grants | 278 | 11 | 267 | 267 | 9 | 1 | 1 | 4 |
| Division of Research Services | 872 | 36 | 836 | 835 | 1 | 4 | 8 | 8 |
| Division of General Medical Sciences | 54 | 3 | 51 | 51 | 5 | 4 | 1 | 1 |
| National Library of Medicine | 214 | | 214 | 205 | 9 | 2 | 2 | 2 |

¹ Includes 1,564 Regular Corps officers, 1,925 Active Reserve officers, and 97 Commissioned Reserve officers on temporary training duty.

² Excludes those part-time employees not in pay status during the month of June 1959.

Table 3.—*Research grants and awards, fiscal year 1959*

| Program | Research project grants | | Construction grants | | Fellowships | | | | Training grants | | Traineeships | |
|--------------------------------------|-------------------------|---------------|---------------------|--------------|-------------|-------------|------------------------|-----------|-----------------|--------------|--------------|-------------|
| | Number | Amount | Number | Amount | Full time | | Part time ¹ | | Number | Amount | Number | Amount |
| | | | | | Number | Amount | Number | Amount | | | | |
| Total | 9,166 | \$142,627,730 | | | 1,771 | \$9,491,949 | 1,052 | \$681,696 | 1,956 | \$49,204,409 | 492 | \$2,503,322 |
| Institutes: | | | | | | | | | | | | |
| Allergy | 1,150 | 14,530,124 | | | 202 | 865,814 | | | 76 | 1,787,096 | | |
| Arthritis | 1,405 | 18,828,522 | | | 51 | 336,838 | | | 185 | 4,076,939 | 62 | 358,038 |
| Cancer | 1,635 | 29,741,748 | | | 301 | 1,250,356 | 272 | 176,266 | 203 | 5,098,535 | 285 | 930,267 |
| Dental Research | 340 | 3,483,647 | | | 41 | 247,214 | 270 | 174,960 | 28 | 649,992 | | |
| Heart | 1,571 | 25,069,871 | | | 391 | 2,108,520 | 84 | 54,432 | 295 | 7,254,677 | | |
| Mental Health | 900 | 17,093,434 | | | 289 | 1,145,175 | | | 740 | 19,635,242 | | |
| Neurological Diseases | 1,009 | 17,021,566 | | | 99 | 474,352 | 94 | 60,912 | 219 | 4,421,865 | 145 | 1,215,071 |
| Division of General Medical Sciences | 1,155 | 16,858,818 | | | 397 | 3,063,680 | 332 | 215,136 | 210 | 6,280,063 | | |
| Division of Research Grants | | | 211 | \$32,012,999 | | | | | | | | |

¹ Part-time fellowship grant to institutions sponsoring part-time fellowship appointments are as follows: NIH total, 152; Cancer, 38; Dental Research, 45; Heart, 11; Neurological Diseases, 14; and General Medical Sciences, 44.

Table 4.—*Payments to States, fiscal year 1959*
[In thousands]

| STATE | Venereal disease special projects | Tubercu- losis control | General health | Mental health | Cancer control | Heart disease control | Water pollution control | Hospital and medical facilities construction | Waste treatment works construction |
|---------------------------|--|------------------------------|-------------------|------------------|-------------------|-----------------------------|-------------------------------|---|---|
| Total ¹ | \$ 2,390 | \$3,995 | \$14,924 | \$3,986 | \$2,171 | \$2,075 | \$ 2,591 | \$135,134 | \$36,429 |
| Alabama..... | 55 | 91 | 411 | 82 | 52 | 57 | 60 | 4,073 | 816 |
| Alaska..... | 27 | 27 | 59 | 24 | 6 | 13 | 16 | 12 | ----- |
| Arizona..... | 23 | 57 | 121 | 25 | 14 | 3 | 24 | 982 | 854 |
| Arkansas..... | 97 | 68 | 267 | 40 | 33 | 23 | 42 | 2,292 | 666 |
| California..... | 66 | 283 | 887 | 260 | 151 | 120 | 139 | 5,433 | 2,249 |
| Colorado..... | 24 | 34 | 160 | 37 | 24 | 27 | 30 | 1,047 | 891 |
| Connecticut..... | 24 | 40 | 124 | 46 | 26 | 26 | 30 | 1,272 | 578 |
| Delaware..... | 8 | 16 | 28 | 26 | 9 | 11 | 31 | 578 | 33 |
| District of Columbia..... | 13 | 36 | 51 | 25 | 9 | 15 | 24 | 399 | 249 |
| Florida..... | 78 | 85 | 362 | 83 | 47 | 44 | 59 | 3,610 | 839 |
| Georgia..... | 181 | 87 | 429 | 94 | 56 | 62 | 25 | 3,812 | 313 |
| Hawaii..... | ----- | 21 | 56 | 26 | 8 | 16 | 25 | 41 | ----- |
| Idaho..... | 10 | 15 | 88 | 26 | 13 | 17 | 20 | 503 | 508 |
| Illinois..... | 200 | 224 | 618 | 199 | 88 | 75 | 86 | 5,348 | 1,654 |
| Indiana..... | ----- | 79 | 348 | 93 | 46 | 51 | 67 | 2,827 | 949 |
| Iowa..... | 6 | 37 | 256 | 63 | 11 | 30 | 39 | 2,764 | 795 |
| Kansas..... | 30 | 33 | 197 | 48 | 31 | 30 | 36 | 1,359 | 795 |
| Kentucky..... | 53 | 108 | 357 | 76 | 49 | 53 | 57 | 4,779 | 325 |
| Louisiana..... | 55 | 77 | 338 | 75 | 45 | 49 | 54 | 3,519 | 694 |
| Maine..... | ----- | 19 | 103 | 23 | 15 | 13 | 26 | 1,202 | 35 |
| Maryland..... | 37 | 79 | 209 | 62 | 34 | 36 | 52 | 1,840 | 364 |
| Massachusetts..... | ----- | 103 | 340 | 98 | 64 | 44 | 78 | 2,746 | 257 |
| Michigan..... | ----- | 143 | 531 | 163 | 88 | 71 | 91 | 5,021 | 1,679 |
| Minnesota..... | 91 | 49 | 300 | 74 | 39 | 39 | 51 | 2,883 | ----- |
| Mississippi..... | ----- | 62 | 360 | 63 | 35 | 52 | 52 | 3,021 | 324 |
| Missouri..... | 82 | 90 | 357 | 95 | 60 | 53 | 60 | 2,574 | 697 |
| Montana..... | 47 | 20 | 81 | 26 | 13 | 16 | 19 | 2,786 | 245 |
| Nebraska..... | 6 | 17 | 147 | 20 | 23 | 15 | 21 | 1,786 | 614 |
| Nevada..... | 11 | 13 | 44 | 26 | 9 | 9 | 21 | 1,294 | 105 |
| New Hampshire..... | 6 | 14 | 54 | 25 | 10 | 15 | 25 | 297 | 229 |

| | | | | | | | | |
|---------------------|-----|-----|-----|-----|-----|-----|-------|-------|
| New Jersey..... | 54 | 107 | 350 | 64 | 54 | 79 | 2,404 | 1,062 |
| New Mexico..... | 37 | 32 | 112 | 26 | 20 | 22 | 1,621 | 708 |
| New York..... | 225 | 376 | 995 | 313 | 137 | 174 | 6,828 | 1,234 |
| North Carolina..... | 143 | 89 | 524 | 103 | 69 | 80 | 3,978 | 1,474 |
| North Dakota..... | 11 | 16 | 100 | 26 | 13 | 21 | 3,933 | 1,426 |
| Ohio..... | 33 | 167 | 630 | 195 | 88 | 116 | 3,611 | 1,573 |
| Oklahoma..... | 25 | 55 | 237 | 52 | 34 | 37 | 3,542 | 878 |
| Oregon..... | 5 | 33 | 162 | 38 | 16 | 31 | 1,593 | 671 |
| Pennsylvania..... | 94 | 229 | 835 | 241 | 109 | 138 | 9,334 | 2,132 |
| Rhode Island..... | | 23 | 54 | 24 | 11 | 15 | 666 | 2,174 |
| South Carolina..... | 119 | 61 | 312 | 62 | 38 | 47 | 2,597 | 424 |
| South Dakota..... | 7 | 13 | 101 | 23 | 12 | 7 | 1,266 | 128 |
| Tennessee..... | 74 | 110 | 408 | 87 | 44 | 53 | 5,114 | 789 |
| Texas..... | 160 | 178 | 835 | 209 | 116 | 110 | 8,260 | 2,170 |
| Utah..... | 5 | 14 | 74 | 19 | 11 | 12 | 1,092 | 701 |
| Vermont..... | | 16 | 54 | 26 | 9 | 13 | 1,024 | 128 |
| Virginia..... | 42 | 103 | 300 | 88 | 50 | 39 | 3,400 | 884 |
| Washington..... | 2 | 53 | 214 | 37 | 34 | 32 | 2,451 | 424 |
| West Virginia..... | 30 | 54 | 224 | 49 | 31 | 36 | 3,637 | 498 |
| Wisconsin..... | | 58 | 250 | 84 | 49 | 38 | 2,992 | 855 |
| Wyoming..... | 6 | 10 | 52 | 26 | 6 | 13 | 610 | 228 |
| Guam..... | | | 1 | 9 | 1 | 2 | | |
| Puerto Rico..... | 30 | 154 | 350 | 62 | 38 | 51 | 1,403 | 125 |
| Virgin Islands..... | 17 | 8 | 7 | 26 | 1 | 5 | | |

¹ Additional amounts as follows were paid during fiscal year 1959: \$1,973,000 under title 1, Public Law 911, for the public health traineeship program; \$200,000 under Public Law 139 for air pollution training and demonstration programs; \$412,000 under Public Law 85-544 to schools of public health for the provision of public health training.

² Includes \$975,000 in services and supplies furnished in lieu of cash.

³ Excludes \$257,000 paid to water pollution interstate agencies under Public Law 660 as follows: \$14,000 to New England Interstate Water Pollution Control Commission; \$46,000 to Interstate Commission on the Delaware River Basin; \$28,000 to Interstate

Commission on the Potomac River Basin; \$58,000 to Interstate Sanitation Commission; \$111,000 to Ohio River Valley Water Sanitation Commission.

⁴ Additional payments of \$638,000 and \$1,000,000 were made to Alaska under Public Law 85-580 and Public Law 830 for disease and sanitation investigation and control activities, and the mental health program, respectively.

⁵ An additional payment of \$25,000 was made to the Moline Hospital, Moline, Ill., under Public Law 139, which provided for construction of community facilities in defense areas.



Office of Education¹

Introduction

FROM ALMOST EVERY PERSPECTIVE the fiscal year of 1959 was one of progress for American education. The criticisms of former years gradually were, for the most part, taking a more constructive turn, with frank appraisal and action resulting. American educators, school administrators, and informed laymen, knowing their schools were not perfect, were seeking without employing crash programs or overemphasis, to strengthen the broad foundation of public education so that every child could develop his potentialities to the fullest.

What were the influences which brought about this determination and the resultant achievements?

For a number of years, critics—laymen and professionals, informed and uninformed—had pointed out what they thought were weak spots in American education. Some of the criticisms were justified; others were not. During this period many bills designed to aid or support education were considered by the Congress and other legislative bodies.

Out of this criticism and from the debate on educational legislation, there came a sharper public and professional awareness of some of the basic deficiencies in the Nation's schools, which required concerted action to correct.

¹The U.S. Office of Education was established by Congress in 1867 for the purpose of collecting and disseminating statistics and facts, and promoting the cause of education. The Office had approximately 920 employees at the end of fiscal year 1959. Its budget for salaries and expenses was \$6,927,500. Federally appropriated amounts were administered by the Office for the following Federal programs: Vocational education, \$40,888,412; land-grant colleges, \$5,051,500; school assistance to federally affected areas, \$225,400,000; cooperative research, \$2,700,000; library services, \$6,000,000; and defense education activities, \$115,300,000.

While ways to remedy deficiencies in key areas were being sought, the American people would not forget the broad basis upon which their educational system is built. Results of the White House Conference on Education were fresh in the minds of schoolmen and laymen as they worked to improve all aspects of the educational program.

Fresher still were the recommendations of the President's Committee on Education Beyond the High School and the proposals of a task force on higher education appointed in 1957. These studies formed the basis for administration proposals which were introduced in both branches of Congress in January 1958. The legislation that emerged as the "National Defense Education Act of 1958" was a compromise, incorporating features of several bills.

NATIONAL DEFENSE EDUCATION ACT FILLS A CRITICAL NEED

The Act was signed into law by President Eisenhower on September 2, 1958. In it the needs of both education and national defense are served in the recognition "that in a free society the individual is the first line of defense."

What were the needs which the provisions of this Act sought to alleviate? A look at the following statistics reveals a few of the conditions which existed in the fall of 1958. Some of these indicate healthy growth; others indicate deplorable lags, shortages, and omissions. But they all reveal basic needs which, in part, the programs of the Act sought to meet. First, some desirable increases:

- The 1958-59 school and college enrollment totaled 44,540,000, or about 26 percent of the Nation's population, an alltime peak and an increase of 2,096,000 over 1957-58. Of the total United States population of persons between 6 and 17 years old in October 1958, 96.4 percent were enrolled in school.
- Public and nonpublic elementary schools—kindergarten through grade 8—enrolled 32,010,000 children, an increase of 1,340,000 over the previous year; secondary schools—grades 9 through 12—enrolled 8,940,000, an increase of 516,000; institutions of higher education, 3,590,000, an increase of 210,000. Enrollment increase over the previous year in the secondary grades was 6.1 percent and in the elementary grades, 4.4 percent.
- At the beginning of the 1958-59 school year there was an estimated increase over the previous year of 8,900 new qualified elementary and secondary teachers.
- Degree granting institutions of higher education conferred a total of 440,304 degrees in 1957-58, 7.1 percent more than in 1956-57.

But, unfortunately there were many undesirable conditions in some of the schools of the Nation:

- During the 1956-57 school year, only about one-third of the high school students in the grades where the courses are usually offered took chemistry or intermediate algebra; about one-fourth took physics.
- It is estimated that approximately 10 million public elementary and secondary school pupils attended overcrowded or double-session classes during the past year because of the need for 182,000 additional qualified teachers and more than 140,000 classrooms.
- Only eight State departments of education had full-time consultants in science; only three in mathematics; and only three in foreign languages.

- Only six States required their schools to maintain cumulative records of their pupils.
- The estimated current shortage of high school counselors was 15,000. More than 50 percent of all high school counselors were located in only seven states serving about one-third of the nation's secondary students, and an estimated two-thirds of these counselors did not meet minimum certification requirements.
- Few, if any, schools and colleges in the United States taught the languages spoken by more than three-fourths of the earth's population.
- In spite of an estimated need last year for a minimum of 30,000 new college teachers, only about 13,400 were recruited. Fewer than one-half of the approximate 9,000 persons who earned doctoral degrees, chose college teaching as a profession, and less than 2,000 entered college teaching for the first time.
- In the fields of mathematics and engineering, less than one-fourth of the new college teachers were Ph. D.'s.

Into such a flood of needs the National Defense Education Act was launched in the fall of 1958.

The administration of the National Defense Education Act, which was committed to the Office of Education with the exception of title IX, required an unusual amount of planning and action. Furthermore, it was urgent to implement the provisions of the Act with all possible haste as the school year was already beginning when this law was signed by the President. Activities relating to the National Defense Education Act, therefore, occupied a priority position among Office activities during the year.

CONTINUING OFFICE ACTIVITIES

Large as were the responsibilities inherent in administering the National Defense Education Act during the fiscal year, these activities were carried on in addition to the basic and continuing responsibilities of the Office of Education.

In fulfilling these responsibilities, Office staff members prepared scores of articles for the Office of Education periodicals *School Life* and *Higher Education* and for the professional journals of many educational organizations. Specialists from all branches of the Office cooperated with Federal agencies and other national organizations in projects of mutual concern to education. Consultative services were provided to State and local agencies on problems such as the improvement of personnel administrative practices, detailed procedures of recording and reporting educational data, current school and children's library problems, and educational legislative measures. Consultative services were also provided to private educational institutions.

Through its regular program of gathering, interpreting, and disseminating basic data, through its surveys of educational programs at all levels, and through research in organization and administration problems, the Office of Education endeavored to meet the needs for information and assistance. In performing these services, the Office

sought to focus attention on educational problems whose solution appeared to be essential to the national welfare.

The National Defense Education Act of 1958

In the National Defense Education Act of 1958 (Public Law 85-864) the Congress recognized that the defense and the security of the Nation are inseparably bound with education. The Act was another landmark in the history of Federal concern for education. It followed such historical educational legislation as The Ordinance of 1785, the Morrill Land-Grant Acts of 1862 and 1890, the Smith-Hughes Vocational Education Act of 1917, the Bankhead-Jones Act of 1933, the George-Barden Act of 1946, and Public Laws 815 and 874 of 1950.

The National Defense Education Act authorized the appropriation of over a billion dollars during its 4-year life. The programs which these funds inaugurate were wisely designed by the Congress to affect the entire system of education from the elementary grades through the graduate school. The prompt and effective implementation of these programs constitutes an impressive testimony to the untiring and dedicated efforts, not only of the staffs of the State departments of education and of the institutions for higher learning, but also the staff of the Office of Education.

ORGANIZATION AND PLANNING

Upon approval of the legislation, the Commissioner solicited the active cooperation of the chief State school officers and the presidents of colleges and universities, and advised with other leading educational officials and consultants, including personnel from State agencies and heads of national organizations, for the developing of guidelines and policies to implement the National Defense Education Act. More than 500 educators cooperated in this work. Within the first few months, a detailed explanation of the Act was made to approximately 4,000 key administrators in higher education.

The Commissioner designated four divisions of the Office of Education to assist with the administration of the measure. The Divisions assigned primary responsibility are as follows:

1. *Division of Higher Education*: Title II.—Student Loans; Title IV.—National Defense Fellowships; Title V, part B.—Guidance Institutes; Title VI.—Language Development.
2. *Division of State and Local School Systems*: Title III.—Financial Assistance for Strengthening Instruction in Science, Mathematics, and Modern Foreign Languages; Title V, part A.—Grants to States for Guidance, Counseling, and Testing Programs; Title X.—Grants to States for Statistical Services.

3. *Division of Statistics and Research Services*: Title VII.—More Effective Utilization of Communications Media.
4. *Division of Vocational Education*: Title VIII.—Area Vocational Programs.

In order to accommodate and centralize the activities growing out of some of the titles of the Act, sections of the Office were shifted and combined, and new branches were created. Twelve of the chief career administrators of the Office of Education were transferred to leadership positions in NDEA programs and about 30 experts recruited.

During the year numerous regional meetings were held under the sponsorship of the Office of Education. Great interest and enthusiasm were shown by State and local agencies, representatives of institutions of higher education, and by leaders in educational, scientific, and related organizations.

The meetings encompassing State programs were arranged in cooperation with State supervisory personnel. As a result of these sessions, mutually helpful channels for working relations between the U.S. Office of Education personnel and State and local supervisors were opened, misunderstandings were clarified, further interpretations were provided for, opportunities were given for State supervisors to explore common problems with Office personnel, and needed services which the Office of Education can provide were determined.

Similarly, regional meetings encompassing higher education programs were held in the fall of 1958 with representatives of higher educational organizations and institutions. Office specialists supplied information on the provisions of the various titles of the Act and on details for implementing the provisions. Consequently, these programs were in operation much sooner than would otherwise have been possible.

Broad plans for launching programs for more effective educational use of mass communications media were discussed at a major conference called by the Office of Education in October 1958, and held in Washington, D.C. At a second conference in January 1959, representatives of several major professional educational organizations and associations met to discuss ways and means of implementing the programs. Throughout the year Office staff participated in the meetings of national professional organizations to explain the provisions of title VII. Regional conferences are planned for 1960.

The National Defense Education Act is not to be regarded as a single specific program, nor as a string of isolated provisions. It is, rather, a mighty complex, in which each part reinforces the other, and all parts join to strengthen education across the board. In this report, however, an account of accomplishments under each title of the Act administered by the Office of Education will be given.

NATIONAL DEFENSE EDUCATION ACT IN FISCAL 1959**TITLE II.—LOANS TO STUDENTS IN INSTITUTIONS OF HIGHER EDUCATION**

Funds authorized for fiscal 1959: \$47.5 million.

Appropriation for fiscal 1959: \$31 million.

Basis: Institutions must provide \$1 for each \$9 in Federal funds.

This program is designed to help public and nonprofit private colleges and universities establish or increase student loan funds so that more able students can complete their higher education.

Accomplishments

- By the end of June 1959, the Office of Education had obligated \$30,882,663 million to 1,197 institutions of higher education for student loans. With the institutions' own contributions to the loan funds, more than \$34 million in Federal and institutional funds were made available to worthy students in fiscal 1959.
- A new set of guidelines was formulated for the evaluation of all 1959-60 student-loan applications by a special consultant panel composed of 12 distinguished college administrators. The new formula allowed the institutions more latitude in establishing their requests for funds, while at the same time it safeguarded the use of the funds in line with the statutory responsibility of the Commissioner of Education.
- Twelve regional workshop conferences on the student-loan program were held. These were instrumental in clarifying the provisions of the title, especially in identifying the degree of financial need of institutions.
- Regional representatives reported enthusiastic reception of the student-loan program in all parts of the country. Administrators in institutions of higher education were eager to talk with them. A rising tide of interest in the program was registered throughout the year by an ever-increasing number of inquiries that came to the offices of administrative heads, regional representatives, and to the Office of Education itself. These reports from the field indicated that institutions manifested a commendable ingenuity in the use of loan-program information and funds to attract talented students, to stretch institutional scholarship funds, and otherwise to make it possible for many students without funds to continue their education.

TITLE III.—FINANCIAL ASSISTANCE FOR STRENGTHENING SCIENCE, MATHEMATICS, AND MODERN FOREIGN LANGUAGE INSTRUCTION

Funds authorized for fiscal 1959: \$75 million.

Appropriation for fiscal 1959: \$57.35 million.

Basis: Fifty-fifty matching required for equipment purchases and minor remodeling; no matching for State supervisory and related services in fiscal 1959 (fifty-fifty matching is required in the following years).

This program provides financial assistance through (1) grants to States for local elementary and secondary schools for the purchase of laboratory or other special equipment in the areas of science, mathematics, and modern foreign languages and for minor remodeling of laboratories; (2) loans to nonprofit private schools on the same level and for the same purposes; and (3) grants to States for expansion or improvement of supervisory or related services in public elementary

or secondary schools in the same subject areas, and for administration of the State programs.

Accomplishments

- State plans outlining programs under which funds would be expended for equipment and minor remodeling, were submitted for approval by 50 States and outlying parts of the United States, and 49 were approved by the end of the fiscal year. From an appropriation of \$49,280,000, a total of \$32,617,341 was certified for payment to States for this purpose.

- Of 132 completed applications for loan funds submitted by nonprofit private schools, 88 were approved by the close of the fiscal year. The sum of \$6,720,000 was appropriated for the year, and of this amount \$1,104,919 was approved for loans. The loans varied in amounts from less than \$1,000 to more than \$50,000.

- The States, upon being advised that their plans had been approved, augmented their professional and administrative staffs in order to supervise the programs. From an appropriation of \$1,350,000, a total of \$1,130,756 was certified for payment to the States for this purpose in fiscal 1959. The States established procedures for local educational agencies to follow in submitting their projects for approval, and standards for equipment to be purchased. They held conferences with representatives of local school systems to explain the Act and the requirements for participation.

- Under the leadership of the Council of Chief State School Officers and with the cooperating assistance of the Bureau of Standards and the Office of Education, a valuable book entitled *Purchase Guide* was published, and 44,000 copies were distributed free to schools. The *Guide* contains valuable aid to local school systems in making application to State educational agencies for assistance in purchasing items of equipment in the fields of science and mathematics and on new methods and materials for teaching modern foreign languages.

TITLE IV.—NATIONAL DEFENSE FELLOWSHIPS

Funds authorized for fiscal 1959: Sums sufficient for 1,000 fellowships.

Appropriation for fiscal 1959: \$5.3 million.

Basis: No matching required.

This program is designed to assist in the expansion and improvement of facilities for graduate education and to increase the supply of well-trained college and university teachers.

Accomplishments

- The 1,000 fellowships authorized in 1959 were administered through 272 programs in 123 graduate schools. These programs were chosen from among 1,040 proposals submitted by 169 graduate schools, and called for 6,000 fellowships. Because of the time necessary to process these applications, it was impossible for any fellows to begin study before summer, and the great majority began their work in September 1959.

- The total cost of the fellowships approved in fiscal 1959 was estimated at \$5.3 million. Of this amount approximately half was for fellowship stipends and dependency allowances and half was for grants to participating institutions to provide the cost of educating the fellows.

- College and university heads were enthusiastic over the fellowship program. They encouraged teachers on their staffs with less than the doctor's degree and promising young men who were just finishing their undergraduate work, to make application for graduate fellowships.

TITLE V.—GUIDANCE, COUNSELING, AND TESTING; COUNSELING AND GUIDANCE INSTITUTES

PART A—STATE PROGRAMS FOR GUIDANCE, COUNSELING, AND TESTING

Funds authorized for fiscal 1959: \$15 million.

Appropriation for fiscal 1959: \$7.4 million.

Basis: No matching for 1959. Fifty-fifty matching for the following years.

This program provides for testing programs in secondary schools to identify students with outstanding abilities and a program of guidance and counseling in the public secondary schools.

Accomplishments

- During the fiscal year, 47 of the States and outlying parts of the United States submitted plans involving total funds in the amount of \$6,238,538, which were approved for payment to the States submitted in time for use in the spring of 1959.
- States participating in title V(A) spent an estimated 18 percent of the funds for State supervision and related services; 38 percent for testing; and the remaining 44 percent for local guidance and counseling programs.
- Under the provision whereby nonpublic schools may receive funds for testing their students, 728 applications involving 54,693 students were filed from 26 States and the District of Columbia. Funds for this purpose in the amount of \$50,752 were withheld from State allotments.

PART B—COUNSELING AND GUIDANCE INSTITUTES

Funds authorized for fiscal 1959: \$6.25 million.

Appropriation for fiscal 1959: \$3.4 million.

Basis: No matching required.

This program is designed to increase the supply of qualified guidance and counseling personnel and to improve the competence of those now working in the counseling field.

Accomplishments

- Fifty counseling and guidance training institutes located in widespread geographic areas of the country were operated during the summer of 1959. These enrolled approximately 2,210 secondary school counselors. The estimated cost of operating the institutes was \$2,248,319.
- Seven institutes were authorized to be held during regular sessions, beginning in the fall of 1959. It is estimated that in these institutes more than 300 persons with little or no previous training will receive instruction at a cost of more than \$1.1 million.
- More than 300 institutions advised the Office of Education that they wanted to participate in this program. Approximately \$5 million, available for the coming fiscal year, will make it possible to operate institutes in an estimated 98 of these institutions.
- In spite of the excellent geographical dispersion achieved in locating these institutes, teachers in many areas found it impossible to travel the distance to attend. It is hoped that the benefits of this title will soon be extended to those areas where few counseling programs exist.

TITLE VI—LANGUAGE DEVELOPMENT

PART A—LANGUAGE AND AREA CENTERS, FELLOWSHIPS, AND RESEARCH

Funds authorized for fiscal 1959: \$8 million.

Appropriation for fiscal 1959: \$3,416,000.

Basis: Fifty-fifty matching required for centers; not matching required for students receiving stipends.

This program provides for centers for teaching foreign languages rarely taught in this country; for modern foreign language fellowships; and for research related to more effective and extensive methods of teaching languages and to the development of specialized teaching materials.

Accomplishments

- Agreements for the establishment of 19 language and area centers were completed with 14 institutions. These centers are providing instruction not only in the languages themselves but also in the economic and cultural aspects of the countries or areas in which the languages are spoken. From the 1958-59 appropriation, approximately \$500,000 was obligated for this purpose.

- From 354 applications the Commissioner awarded 171 foreign language fellowships for advanced study and research in 25 institutions of higher education. These are distributed as follows: 22 in Arabic, 32 in Chinese, 10 in Hindustani, 24 in Japanese, 14 in Portuguese, and 69 in Russian.

- Eleven of the awards were for summer-session 1959 studies; 25 were for studies beginning in the summer and continuing through the 1959-60 academic year; and the remaining 135 awards were for the 1959-60 year only. An estimated \$500,000 has been allocated for these fellowships.

- Twenty research and development projects (studies and surveys, 6; research of more effective teaching, 6; and development of specialized materials, 8) were under contract with institutions of higher education, organizations, and individuals. These projects ranged in character from sending an American scholar to the Near East to make recordings of a critical but little-known Asian language to a massive 3-year program for developing instructional materials in 25 Ural-Altaic languages. A typical project was a 3-year survey of all aspects of modern language instruction in the United States. A total of \$2,415,749 from 1958-59 funds was obligated for these studies.

PART B—MODERN FOREIGN LANGUAGE INSTITUTES

Funds authorized for fiscal 1959: \$7.25 million.

Appropriation for fiscal 1959: \$1,594,617.

Basis: No matching required.

This program provides for institutes to be established in institutions of higher education to improve the skills and effectiveness of elementary and secondary school teachers of modern foreign languages.

Accomplishments

- Twelve summer-session institutes were established from among 251 proposals submitted. At the first institute to get underway 1,500 language teachers applied, of which 100 were enrolled. Approximately 1,000 teachers attended

these institutes which ranged from 6 to 8 weeks in length and provided instruction for elementary and secondary school teachers of French, German, Spanish, and Russian.

- Four academic-year institutes were planned for operation during the 1959-60 school year. At one, 20 secondary school teachers will study Russian; at a second, 20 secondary school teachers of Spanish will further their studies; at a third, 20 secondary school teachers of French will study; and at a fourth, 35 elementary teachers of modern foreign languages will continue their studies.
- The total cost of the language institutes program for fiscal 1959 was about \$1.5 million.

TITLE VII.—RESEARCH AND EXPERIMENTATION IN MORE EFFECTIVE UTILIZATION OF COMMUNICATIONS MEDIA

Funds authorized for fiscal 1959: \$3 million.

Appropriation for fiscal 1959: \$1.6 million.

This program provides for research and experimentation in the educational uses of television, motion pictures, radio, and related media, and for the dissemination of information on these media to State and local educational organizations and to other educational institutions.

Accomplishments

- After evaluating more than 350 proposals, the Advisory Committee approved 69 of these. The Office of Education gave grants amounting to \$1,349,985 to 23 of the 69 successful applicants. Complete funding of all activated projects, requiring a total of more than \$5,353,000, must wait availability of funds in the future.
- Of the 65 proposals which have been approved, and on which negotiations are complete, 19 are concerned with an investigation of the types of content suitable to teaching via the new media, 20 are investigating methods of using the media in teaching, 17 will examine the quality of education resulting from the use of the media, and 9 are making direct comparisons between the effectiveness of the media and of traditional methods of instruction.
- The Office of Education contracted 14 dissemination projects for a total expenditure of approximately \$250,000. These dissemination projects were concerned with one or more of the following purposes: to provide information about research completed, in process, or projected; to provide more information about significant programs and teaching practices; to increase the accessibility and availability of the new media by bibliographic and direct means; to improve directly the educational use of the media and the training of teachers for such use; and to develop national goals, standards, and guidelines for improved educational uses of the media.
- Total obligations under title VII were \$1,599,935.

TITLE VIII.—AREA VOCATIONAL EDUCATION PROGRAMS

Funds authorized for fiscal 1959: \$15 million.

Appropriation for fiscal 1959: \$3.75 million.

Basis: Fifty-fifty matching by State and/or local funds.

This program is designed to fit young people and adults for useful employment as highly skilled technicians in recognized occupations requiring scientific knowledge, as determined by the State Board for each State, in fields necessary for the national defense.

Accomplishments

- Forty-six States, Hawaii, Puerto Rico, and the District of Columbia participated in programs under this title during fiscal 1959.
- Approximately 47,500 persons were enrolled in more than 660 title VIII programs and courses during the fiscal year.
- Offerings during the year provided training for highly skilled technician occupations in fields such as electronics, drafting and design, tool and die design, instrumentation, industrial chemistry, business data processing, and computer programming. Since extensive day-school courses could not be established quickly, most of these vocational courses were of the extension type.

TITLE X.—SECTION 1009: IMPROVEMENT OF STATISTICAL SERVICES OF STATE EDUCATIONAL AGENCIES

Funds authorized for fiscal 1959: \$2.75 million (not to exceed \$50,000 for any one State).

Appropriation for fiscal 1959: \$489,383.

Basis: Fifty-fifty matching.

This program is designed to help the States improve the accuracy, speed, and scope of their statistical services so that nationwide data on the condition and progress of education will be greatly improved.

Accomplishments

- Plans from 42 States, the District of Columbia, Hawaii, and the Virgin Islands were approved. Twenty-nine of the States and outlying parts of the United States completed their applications in time to receive funds amounting to \$365,927 during fiscal 1959.
- A variety of ways of improving statistical services were revealed in these plans. Forty-two States planned to add personnel; 41 to adopt standard terminology, definitions, and units of measure; 26 to improve their State agency statistical services organization; 17 to speed the process of collecting, analyzing, and reporting by the installation of data processing machines; 18 to add data-processing machines to those already in use; 37 to issue manuals and handbooks for use of local school personnel who record and report statistics; 43 to provide workshops and conferences in local communities for the inservice training of these local school personnel; 41 either to broaden their data collection systems or to close the gaps in their present ones.
- These plans will make it possible for the States to improve the adequacy and accuracy of data and to speed the collecting, processing, and reporting of educational information. Many of the States will conduct conferences, workshops,

and other kinds of inservice training activities to increase the efficiency and competency of local and State personnel engaged in recording and reporting educational data.

● Furthermore, 43 of the States planned comprehensive and intensive evaluations of their entire statistical services in order to provide wisely for future needs. A large number of States analyzed their statistical reporting services with a view to improving public relations techniques along these lines.

Statistics and Research

EDUCATIONAL STATISTICS

Besides carrying on 34 recurring surveys and cooperating with educational specialists throughout the Office of Education, the statistical branch of the Office continued its traditional advisory and consultative responsibilities—greatly increased by NDEA activities. During 1959, statistical services to specialists conducting educational research projects were considerably accelerated. In the area of higher education, 19 surveys were conducted on the following subjects: enrollment, faculty, earned degrees, receipts and expenditures, property, and organized occupational curriculums. Two surveys of State school systems dealing with problems of enrollment, teachers, and school-housing were made. The area of local school systems was covered by 13 surveys on the following subjects: current expenditures per pupil, suburban systems, city systems, rural county systems, secondary school programs, the beginning public classroom teacher, and teacher turnover. The Office developed projections to 1970 of important statistics such as annual teacher shortage, enrollment, and earned degrees.

The Office of Education, under contract with the National Science Foundation, collected information on research staff and expenditures in institutions of higher education throughout the Nation—the first national study of its kind to be conducted. These data were published under the title *Survey of Higher Education Research Staff and Expenditures* and will be valuable to various Federal agencies in planning for scientific research to be conducted at colleges and universities. The data will also reveal the need for the development of research programs in the basic sciences in various institutions in the States.

Under contract with the National Science Foundation and the National Institutes of Health, the Office began the first definitive survey of programs of study of graduate students by selected fields of study. Titled *Programs of Study of Graduate Students*, the survey will classify the programs under the following types: (1) mathematics, (2) physical sciences, (3) life sciences, and (4) medical and health fields and related social sciences.

Survey of Teachers Leaving the Teaching Profession, the first scientific national study of the rate of loss to the teaching profession

of public school teachers, was completed during the year. The survey disclosed that, within the period September 1957 to September 1958, 10.9 percent of all teachers left the profession. For a number of years, Office of Education estimates of teacher turnover have been based on 7.5 percent loss. (See table 2.)

An Advisory Committee of Users of Educational Statistics, composed of 14 outstanding individuals interested in education, was appointed by the Commissioner at the beginning of the fiscal year. At meetings held during the year the committee discussed problems of statistical reporting and dissemination and the unmet needs for statistics in the areas of elementary and secondary schools and higher education. Office programs for educational statistics in these areas formed the basis for the discussions.

As an outgrowth of the activities of this committee, Office of Education statisticians began a compilation of needs for educational statistics. Sources used in compiling this list of unmet needs, to be revised annually, are users of educational statistics in agencies of the Federal Government, Office specialists, organizations of professional educators, and letters of inquiry addressed to the Office. More than 150 types of unmet needs have already been identified.

LIBRARIES AND LIBRARY SERVICES

Increasing population and school enrollments, present teaching methods which stress wider use of library source materials, and the extension of library resources to wider areas of the population have created a growing demand for professionally trained librarians. In 1957-58 there were one-third more schools granting library science degrees than there were 10 years ago, but the number of graduates (1,866) remained about the same. The resulting shortage was responsible for the use of many untrained or undertrained persons during fiscal 1959. It was also one of the factors responsible for an increase in beginning salary for graduates from accredited library schools. These salaries increased from \$3,150 in 1950 to \$4,683 in 1959, whereas salaries of those already in the profession were not raised accordingly.

Library Services to Rural Areas

Under the Library Services Act (Public Law 597, 84th Cong.), enacted in 1956 to improve and extend library services to rural areas with no libraries or with inadequate services, \$6 million was appropriated for fiscal 1959. During this third year of the program, 46 States, Hawaii, Guam, Puerto Rico, and the Virgin Islands expanded their services with a total budget of \$17,324,632, of which only \$5,506,514 was from Federal funds. It is evident that the Act stimulated the States and rural communities to provide additional library services.

During the past year, the State library agencies gave additional

attention to the establishment of county, multi-county, or regional library systems; the establishment of State library branches and centralized cataloging centers; adoption of inservice training and scholarship projects; and the establishment of several programs of cooperation between States. The overall State planning, which this legislation requires, continued to be a major contribution of the Act.

Since the passage of the Act in 1956, State funds for the development of rural public library service have increased 45 percent. Over 800 rural counties across the Nation have received new or improved public library service. More than 135 new bookmobiles and other vehicles have been placed in operation in rural areas by State library agencies. These agencies have added more than 70 field consultants, 100 other professional librarians, and 300 clerks, bookmobile drivers, and other employees. Over 200 county and regional library projects have been organized. Cooperation between libraries and areas without libraries was an important factor in this development program.

Public Libraries

Public libraries have always been a source and center of education and recreational reading. But in the past they have been severely limited in number, resources, and geographic distribution. Recently, however, there has been a public awakening to the need for improving the facilities of these institutions, of providing adequate and improved distribution of resources to rural and urban areas, and of extending these services to the aging.

Approximately every 5 years the Office of Education conducts a comprehensive study of the Nation's public libraries. During each of the intervening years, it publishes a series of five brief annual surveys for the larger public libraries—those serving populations of 35,000 or over.

The 1956 nationwide report showed a total circulation of almost 490 million books, an increase of more than 100 million over 1950. Annual income for 1955-56 was approximately \$185.5 million, of which 87.3 percent came from local public funds, 2.7 percent from State sources, and 10 percent from endowments, gifts, and other sources. Of the \$170.2 million spent for annual operating costs, approximately \$104 million was spent for library staff salaries, an increase of 58.7 percent over the \$65.4 million spent in 1950. Expenditures for books and other library materials rose from \$17.5 million in 1950 to \$26.8 million in 1956.

The Office supplied staff assistance to aid in planning the first nationwide institute on library service to the aging, an area of increasing concern to public libraries. Staff members also compiled a selected and annotated bibliography entitled *Education on the Aging*. Cooperation on various projects was maintained with the

Special Staff on Aging, the Federal Council on Aging, and the National Committee on the Aging.

School Libraries

During the past year, the Office published *Certification of School Librarians: A Compilation of State Requirements, 1958*, to provide needed information on policies, practices, and requirements in the certification of school librarians. This study revealed that in all States except one, school librarians must be certified as teachers, and was useful in determining the eligibility of prospective school librarians for loans under title II of the National Defense Education Act.

Office staff members prepared materials to assist librarians in the interpretation of the National Defense Education Act, among them an article which appeared in the *Wilson Library Bulletin* and a bibliography, *School Library Materials in Science, Mathematics, Modern Languages, and Guidance, and How To Use Them*, to assist administrators, librarians, and teachers in the location of sources, and selection and use of materials under titles III and V of the NDEA. Over 9,000 reprints of this bibliography, originally published in the January-February issue of *School Life*, have been supplied on request to the schools.

College and University Libraries

During fiscal 1959, work was begun on a nationwide survey of libraries in institutions of higher education. When the report is finished it will be included in the forthcoming *Biennial Survey of Education, 1956-58*. The study indicated that only 40 percent of the libraries covered by the survey reached the minimum of 50,000 volumes, a standard recently formulated by the Association of College and Research Libraries. Library expenditures in these institutions represented only 3.1 percent of total institutional expenditures as compared with the ACRL-recommended 5 percent. This 3.1 percentage has remained constant over the past 10 years, although the percentage of expenditures for organized research has nearly doubled.

In the face of rising enrollments and increased use of libraries, severe inadequacies still exist not only in finance, but also in building facilities and procurement of qualified staff.

COOPERATIVE RESEARCH PROGRAM

The Office of Education provides support for research in education through its Cooperative Research Program. This program is operated under Public Law 531, 83d Congress, which authorizes the Commissioner of Education "to enter into contracts or jointly financed cooperative arrangements with universities and colleges and State educational agencies for the conduct of research, surveys, and demonstrations in the field of education." The purpose of this pro-

gram is to develop new knowledge about major problems in education and to devise new applications of existing knowledge in solving such problems.

This program was initiated in July 1956. The appropriation for that first year was approximately \$1 million. For the second year it was \$2.3 million and for the third year \$2.7 million. By the end of its third year, the program had received a total of 767 applications for the support of various research projects. These were all reviewed by the Office of Education Research Advisory Committee, which recommended 244 of them to the Commissioner for support.

As of June 30, 1959, a total of 192 projects had been initiated since the beginning of the program. The largest number—58—deals with the education of the mentally retarded. There are also 24 projects having to do with the selection and career development of teachers and school administrators, and there are 23 projects dealing with the identification and development of gifted children.

During 1959 alone there were 271 applications received, and the Research Advisory Committee recommended 86 of these projects for support. The total of \$2.7 million, which was made available in the appropriation, was obligated during this year. Approximately half of this amount was used to continue the support of projects begun during the previous 2 years, and the remainder was used for the initiation of new projects. By the year's end, 59 new contracts had been signed. Among them were 10 dealing with the identification and development of gifted students, 6 concerned with school organization and administration, 6 on the selection and career development of teachers, and 5 on the education of the mentally retarded. These projects are distributed through 40 States and outlying parts of the United States. There are 39 colleges and universities and 2 State departments of education participating in the 59 projects initiated during 1959.

To date, a total of 43 final reports on completed projects have been received and accepted. The reports themselves are being distributed as widely as possible in appropriate libraries. Summaries of the findings are also being extensively distributed to teachers and others concerned with putting the results of research into practice. In addition, numerous articles have appeared in professional journals. These describe the research procedures and the findings and thus make both the techniques and the results available to other researchers and to various professional groups.

Two publications describing the program were issued during 1959. The first of these, *Cooperative Research Projects: Fiscal 1958*, groups the studies initiated during the second year of the program under general categories. It summarizes the problem, the major objectives, and the general procedures to be followed in each research project.

The second publication, *Projects Under Contract: July 1, 1956-December 31, 1958*, lists the title, the institution, the chief investigator, the duration, and the funds provided for all projects initiated since the beginning of the program.

Three research seminars were presented by the Cooperative Research Program during the year. These were held in the Department of Health, Education, and Welfare for the purpose of sharing information about specific research projects with interested professional personnel in Federal agencies and professional associations and with practicing educators in the area of Washington, D.C. At these seminars, the researchers described their projects, reported on techniques and materials being used in the research, and discussed possible findings. The projects covered at these seminars were (1) Community Understanding as a Factor in the Financial Support of Public Education, (2) Development of Criteria of Success in School Administration, and (3) Modular Coordination Research for School Buildings.

Now that the Cooperative Research Program is established as a continuing function, plans are being made in three definite areas to strengthen and develop it.

1. National goals are being established for research in education. In defining these goals, the Office will work with representatives of the many professional organizations concerned with social science research, and with those of other government agencies concerned with educational research.

2. A nationwide survey is being made of the research in education which is underway at the present time. This survey should make it possible to identify more clearly the major problems and in turn should enable the Office of Education to focus its Cooperative Research Program on the most pressing needs.

3. Research projects already completed are being analyzed and the findings used as the basis for the development of new theory in education. To do this, the Office plans to set up study groups composed of outstanding persons with common interest in a specific area. Each group will examine the research in its area and that in related disciplines. The findings will then be synthesized in an attempt to provide a basis for badly needed theory related to the educational process. This theory will be tested through field studies, which will serve not only for evaluating the theory but also for demonstrating new practice.

EDUCATIONAL MEDIA

Fiscal year 1959 saw a continued increase and a wider and more effective use of motion pictures, television, radio, disk and tape recordings, and still-projected materials for instructional purposes in the schools of the United States than at any time in the past.

In a survey of 3,660 16-mm. motion picture film libraries, it was found that there are 1,009 film libraries, housing 561,376 films, which are operated by educational institutions or agencies. Eleven new educational television channels began operation during the past fiscal year, bringing to 43 the total currently on the air. Five new FM radio stations started broadcasting, making a total of 158 FM and 29 AM radio stations owned and operated by educational institutions.

The most significant development for the educational uses of the new media during the fiscal year was the passage of the National Defense Education Act of 1958. Titles III and VI both provide for emphasis upon the new media for the improvement of instruction in selected subject areas. Even more important for new media development is title VII, which provides for Federal support of research in and the dissemination of information about new educational media.

To implement the provisions of title VII, the Office of Education has established the Educational Media Branch in the Division of Statistics and Research Services. The branch consists of two sections: the Research Section, which administers the provisions of part A of title VII, and the Dissemination Section, which administers provisions of part B of the title. In order to use the existing experience and knowledge in the Office of Education to best advantage, two sections of the Division of State and Local School Systems, the Radio-TV Section and the Visual Education Section, have been integrated into the Dissemination Section of the new branch.

Although no funds were appropriated for fiscal 1959 for the new program "Captioned Films for the Deaf," members of the staff have devoted considerable effort to the establishment of policies, procedures, and criteria for future use.

State and Local School Systems

Three of the most serious problems that faced the Nation's schools during fiscal 1959 were teacher shortage, inadequate financial support, and classroom shortage. Each of these acute problems will be discussed in the following pages.

TEACHER SHORTAGE

Year after year, with only slight changes for better or worse, the teacher shortage persists. The National Education Association's 1959 report on teacher supply and demand identified a number of major factors responsible for the shortage. Among these are the following: (1) the enormous year-by-year increases in enrollment, (2) the competitive manpower demands of peacetime national defense and industrial and commercial operations, (3) the ready admission into

fields heretofore largely closed to them, of educated women, who in former years would have looked toward teaching as their major occupation, (4) the low salaries paid to teachers in the vast majority of school districts of the Nation, (5) the upgrading of professional standards, and (6) the imbalance between the number of college graduates and the total needs of the Nation. These factors applied in a greater or lesser degree to all levels of teaching in fiscal 1959.

A study of the teacher supply and demand figures in table 2 reveals that there was need for 182,000 additional qualified elementary and secondary school teachers in 1958-59. This figure is considerably higher than earlier estimates had indicated. A recent Office of Education survey revealed that the annual turnover rate formerly placed at 7.5 percent had advanced to 10.9 percent. This increased rate accounted for approximately 45,000 of the total shortage.

Elementary level.—Although there was a slight percentage of increase in number of elementary teachers (based on the previous year) over the percentage of increase in elementary pupil enrollment, it was not significant enough to affect the aggregate shortage for fiscal 1959. This was due primarily to the backlog shortage which has persisted for the past decade or more and to the increased yearly enrollment estimated to be 1 million on the average over the past 10 years.

During this period, however, there had been a steady improvement in certification standards of elementary teachers. While this may have increased the number of teachers with substandard credentials (there were about 8 percent in 1958), the overall effect has been to increase the percentage of total teachers with standard credentials. Approximately three out of four elementary teachers in fiscal 1959 were college graduates.

Although there are encouraging signs in the picture of teacher supply for elementary schools, it is still true that the greatest need for teachers will continue to be, as it has been for some years, at the elementary level.

Secondary level.—The high school scene is a bit more encouraging. The greatest need for teachers at this level is not so much in total numbers as in better distribution of those preparing to enter secondary teaching. In this respect there are heartening signs. For instance, there were 6.2 percent more 1958 college graduates who were prepared for high school teaching than there were in 1957, but there were 11.0 percent more prospective science teachers and 12.3 percent more mathematics teachers in 1958 than there were in 1957. This better distribution reflects the influence of teachers and counselors in institutions of higher education in pointing students towards teaching as a career.

National Defense Education Act and teacher shortage.—NDEA title II provides loans—stimulated by a possible 50-percent forgiveness—to those who plan to teach on the elementary and secondary level. Part B of title VI provides stipends to elementary and secondary school modern language teachers for training at language institutes. Title V is designed to increase the supply of qualified counselors in secondary schools.

FINANCING EDUCATIONAL SERVICES

In the general field of financing public education, the most prominent development of fiscal 1959 was the growing conviction of a number of educational associations and organizations that the Nation must improve its program of public education by increasing substantially the public revenues for this service. A doubling of the present revenues was frequently mentioned. Reasons cited for this need were expanding enrollments, necessity for constructing more classrooms, shifting populations, inflation, the improvement of quality in educational services, and the attraction and retention of good teachers.

A substantial increase in funds for public education had been recommended in *A Report to the President* issued by the White House Conference on Education in 1956. Similar recommendations were vigorously urged in *The Pursuit of Excellence: Education and the Future of America*, issued as the Rockefeller Report on Education in 1958; in *Public Understanding and Support for Education*, issued by the Problems and Policies Committee of the American Council on Education in 1958; and in *Education for the Age of Science*, issued by The President's Science Advisory Committee in 1959. These views were also supported by a publication entitled *National Policy and the Financing of the Public Schools*, issued by the Educational Policies Commission.

How much to spend for education.—The Educational Policies Commission was quite specific about the amount of the increase. Instead of recommending "double," it presented a method by which any community, State, or region can determine a reasonable amount to be expended for current operations of public education.

The formula suggested by EPC is based upon two principles. The first is that at least 50 professional staff members are needed for every 1,000 pupils enrolled in satisfactorily organized school administrative units. The second is that an adequate average beginning salary for new college graduates in the educational profession should be equal at least to that offered in other occupations open to the candidates. A calculated average salary for professionals in

education is then used in estimating the total expenditures for current operation of the public schools.¹

The EPC procedure further proposes that the annual per-pupil current expenditure needed is 12 percent of the average paid annually to other beginning employees in occupations requiring a college degree. According to this formula, the amount required to raise school expenditures to this level over the Nation was estimated to be about \$8 billion for the 1958-59 school year.

Sources of additional funds.—Funds for the operation of public elementary and secondary schools were derived from governmental sources in the following approximate national average percentages in fiscal 1959: local, 56 percent; State, 40 percent; and Federal, 4 percent. These percentages have continued with only slight changes over the past 10 years, but they may be altered by substantial increases in school revenues required in the years immediately ahead.

School revenues from local taxes are obtained chiefly from the local property tax. Programs designed to improve the general property tax have been authorized in many States, and it is evident that this tax is being revised and made more equitable through the upgrading of assessments, the reconsideration of restrictions on voting levies, and the modification of exemptions. Advancement of the property tax will make it more productive in providing revenues for schools, but the very large increases proposed appear to be more than can be expected from tax revenues in the local school administrative units.

Some increases in local revenues for schools may be obtained from local nonproperty taxes authorized for school support in some States. These may help to augment the local revenues for the public schools, but again, few would urge adoption of these taxes to the extent that would be required for the expansion recommended by nationwide study groups and national leaders.

State appropriations for the public schools have shown substantial increases in recent years. These increases, however, have been ab-

¹ The calculations involved in the EPC formula are based on statistical studies which indicated \$4,500 as the approximate average beginning wage in occupations for which a college degree is required. The average wage of all professionals in a number of school systems throughout the Nation was found to be approximately 1.7 times the average beginning salary. In order to find a desired minimum average wage for a professional staff, \$4,500 is then multiplied by 1.7 ($\$4,500 \times 1.7 = \$7,650$). Based on a 1958 public school pupil enrollment of 34,620,000—K-12—(see table 1), the number of professionals (teachers and administrators) needed according to the EPC formula (50 for each 1,000 pupils) would be 1,731,000. Total salaries for these professionals would be \$13,242,150,000 ($1,731,000 \times \$7,650$). Total salaries of professional staffs in a number of school systems have been found to be, on the average, approximately 70 percent of yearly current operations. Dividing \$13,242,150,000 by 0.70 would yield \$18.9 billion—the amount needed for current expenditures for the Nation's public schools in 1958-59. The actual amount expended for current operations was an estimated \$10.7 billion. More than \$8 billion, therefore, would have been needed in 1958-59 to raise current expenditures to the level suggested by the EPC formula.

sorbed by inflation or increased enrollments, and the proportion of funds provided from State sources has advanced only slightly.

Probably the most significant improvement in State systems for financing the public schools is seen in the programs for school construction. A recent study by the Office of Education revealed that 35 States and 3 outlying parts of the United States have programs for assisting the local school administrative units in financing additional classrooms. In 1956-57, 19.5 percent of the total capital outlay for this purpose came from the following sources: 8.3 percent from State loans and State grants and 11.2 percent from school building authorities in the States. In 1955-56, the percentage from both of these sources was 15.6.

Publications on school finance.—Supplying authoritative and comprehensive information on financing the public schools is regarded as an important contribution the Office of Education makes in advancing public education. In this effort, the Office gathers information chiefly from the State departments of education and makes such information available under the following titles: *Federal Funds for Education; Local, State, and Federal Support of Education; Local, State, and Federal Funds for Public School Facilities; Sources of State and Local Revenue for Education; State Fund Distributions to Local School Systems; State Provisions Affecting Local School Support; Financing Public School Facilities; and Public School Finance Programs of the United States.* Through the use of factual data supplied in these publications, local, State, and national leaders in school finance can evaluate present programs and recommend improvements necessary to the national welfare.

SCHOOL HOUSING

Office of Education records show that in the fall of 1958 there were 33.9 million pupils enrolled in the full-time, public elementary and secondary schools of the country. This was an increase of 1.1 million pupils, or 3.5 percent, over enrollment figures for the fall of 1957.

Available to these pupils and their 1,301,000 full-time and part-time teachers were 1,233,000 classrooms. These included 71,600 classrooms either newly constructed or converted from other uses, which were added in continental United States during the 1957-58 school year. During the same year, 17,300 classrooms were abandoned because of obsolescence, school district reorganization, population shifts, and other reasons. It was estimated that 140,500 additional instruction rooms with related facilities were needed in the fall of 1958. Of these, 65,300 were needed to house 1,843,000 pupils in excess of normal capacity who were either attending half-day sessions, were enrolled in overcrowded or substandard rooms, or were accommodated in

rented quarters, and 75,200 classrooms were needed to replace otherwise unsatisfactory classrooms.

State reports compiled by the Office indicated that 68,400 additional instruction rooms with related facilities, such as gymnasiums, auditoriums, cafeterias, storage rooms, and other necessary spaces, were to be constructed during the 1958-59 school year. It was estimated that the total capital outlay, including the cost of these facilities, will be approximately \$3 billion.

In spite of continuous efforts to provide adequate school facilities in the United States, the problem of classroom shortages remains acute. It was estimated by the Office of Education that in September 1959, there would still be a shortage of at least 130,000 classrooms.

During fiscal 1959, specialists of the Office of Education completed a number of studies dealing with significant school plant problems. In response to a request from UNESCO, a bibliography covering published materials in the United States on school furniture, equipment, and supplies, together with samples of these published materials, was prepared and sent to Paris for display and use in the Education Clearing House of UNESCO.

Office of Education specialists, utilizing the results of Office studies on children's body measurements, provided consultative services in connection with problems of design and manufacture of school furniture and equipment. They cooperated with regional organizations of State school plant specialists in making school plant cost studies, in developing State school plant programs, and in outlining procedures for determining and financing long-range school construction needs. They also cooperated with various school systems in making a number of studies on school plant safety. They worked with technological groups in connection with the development of new construction materials and in the application of new concepts and techniques in school construction procedures.

A conference on school facilities was held by the Office of Education to identify improvements needed in its services to State and local school systems and to point out some of the critical school housing problems and issues which faced the country. Invited to attend this meeting were outstanding leaders representing national and regional school planning groups, college professors who teach in the area of school plant planning, architects, State school plant specialists, manufacturers and distributors of school furniture and equipment, school boards associations, school administrators and research organizations and foundations. These leaders recommended Office research on school safety, planning and designing school plants to fit the needs of school and community, efficient school plant management procedures, and requirements for school furniture and equipment.

Other recommendations growing out of this conference were: more services, including more field services, to meet the needs of State and local school systems; an expansion of the present research program to include assistance that may be available through colleges and universities and philanthropic organizations; and wider dissemination of new ideas and practices through an expanded publications program.

STATE SCHOOL ADMINISTRATION

Much Office of Education research and study is designed to assist State officials in the development of practical solutions to educational problems confronting State governments. The cooperative relationships in this area that have developed over the years between the Office and State departments of education have proved to be particularly rewarding. This is especially important since State governments are looking to their departments of education for greater leadership and services in the field of public education.

The Office compiles, develops, analyzes, and distributes information on State structure and organization of public education and on functions of State educational agencies. Thus each State may follow the efforts being made in other States to improve State school administration. When educational problems are nationally significant, the Office makes its resources available to coordinate the efforts of States in cooperatively working toward solutions. Developments of this scope during fiscal 1959 are summarized below.

Special attention was focused upon educational problems involving State programs of educational research, State accreditation and approval of public schools at the elementary and secondary level, and State pupil transportation programs. Work continued on the functional analysis of the powers and duties of State departments of education and other State educational agencies.

It is becoming increasingly clear that means of coordinating the educational research efforts of public agencies must be found before the full benefits of research findings can be realized. Preliminary investigations were conducted for the purpose of perfecting a study design for attacking this problem. As a first step, a project dealing with the research resources and activities of State departments of education was begun during the year.

State departments of education are confronted by many problems concerning policies, practices, and procedures in the approval and accreditation of the public schools under their supervision. The richest source of information—the experience of other State departments—has not yet been fully tapped. At the request of the Study Commission of the Council of Chief State School Officers, the Office began a survey of this area which will lead to desirable improvements

in State approval and accreditation programs. Progress continued in establishing and maintaining a solid basis for comparable educational information among States and among local school districts. In the developmental phase, the year saw the completion of two major projects. The first of these produced the handbook *Property Accounting for Local and State School Systems*, which has been officially approved by a number of national educational associations as the basic guide for property accounting for local and State school systems in the United States. This handbook provides the tools for recording and reporting comparable information about school land, buildings, and equipment.

The second project produced the handbook *Financial Accounting for School Activities*. Concerned with the accounting procedures for funds within individual schools for school activities such as athletics and school clubs, this handbook provides a basis for deriving comparable data on the millions of dollars spent annually in such activities.

In addition, a new project dealing with personnel accounting for local and State school systems was initiated. The purpose of this endeavor is to develop a personnel accounting handbook which will provide the foundation for comparable information about pupil personnel and employed staff of the Nation's schools. Like the projects summarized above, this one will also be conducted in cooperation with a number of national educational associations.

In the implementation phase, States continued to put into practice standards contained in the completed handbooks in the "Records and Reports Series." Funds provided under title X of the NDEA made it possible during fiscal 1959 for many States to begin the improvement of their statistical services in line with the standards contained in these handbooks. For example, a number of additional States revised their school district financial accounting systems to incorporate the standard accounts and terminology of the handbook *Financial Accounting for Local and State School Systems*, published by the Office in 1957. See the section of this report on NDEA activities under title X for additional details.

LOCAL SCHOOL SYSTEMS

A study during the year analyzed State laws relating to administrative, supervisory, and other specialized personnel services necessary to improve school program quality and school system efficiency. In cooperation with the American Association of School Administrators, the Office launched a project to extend over a period of several years which will deal with problems of determining the administrative and special service staff requirements and organization necessary for maintaining good quality school programs. The Office of Education will make the basic studies, which will be used by the AASA in preparing

policy documents for the guidance of local school system administrators. After a jointly sponsored conference of leading superintendents of representative school systems, held to determine top priority problems, plans were developed for studies to be made by the Office in fiscal 1960.

The services of the Office in improving local school board effectiveness were also expanded. A study of school board policy manuals was completed and will serve as a guide to school boards and superintendents in developing written statements of policies for their systems. In cooperation with the National School Boards Association, a nationwide survey of school board organization, membership, and practices was undertaken. This survey was designed to provide basic information needed by State and local school officials and school board associations in their efforts to improve school board effectiveness.

During the year a study was begun and virtually completed which analyzed administrative handbooks and personnel manuals developed by school systems for teachers and other employees. This study was designed to provide a guide for school administrators in developing handbooks or personnel manuals for teachers and other employees.

ELEMENTARY EDUCATION

Typical of its leadership role on all levels of education, the Office of Education convened a conference this year for supervisors of elementary education in large cities. Coming from 70 cities in 31 States and the District of Columbia, and representing approximately 75 percent of the elementary school population and their teachers, these supervisors discussed common problems that face elementary educators today. The discussions, it was believed, constituted a cross section of opinion on elementary school problems during fiscal 1959. Highlights of the discussions carried on at this conference follow:

(1) *Recruitment, orientation, and inservice growth.*—A major problem in recruitment is knowing what will attract qualified teachers to a school system. ● Teachers need help throughout the first year, not just in the opening weeks of school. ● The major factor in inservice growth of teachers, principals, and supervisors is human relations.

(2) *Curriculum problems.*—Parents want evidence that schools are teaching fundamentals. ● School people want to maintain balance in the curriculum so that children will have many opportunities to develop curiosity, creativity, and resourcefulness in the arts, social studies, and the humanities, as well as in science and mathematics. ● The need for better articulation between all levels of the school, in providing for continuity in opportunity and learning, has resulted in curriculum planning on the K-12 basis. ● The range of difference in ability within each class caused some schools to experiment with grouping by levels of instruction in such areas as reading and mathematics. ● There was not complete agreement that foreign languages should be offered in all elementary schools. It was felt that the foreign-language program (as any other innovation) required justification in terms of goals, evaluative

criteria, usefulness of language chosen, psychological rightness of teaching methods, and omissions from the existing school program in order to make room. ● Instruction by television increased during the year. While TV education offered more children experiences in science, art, and foreign languages, for example, there was continuing concern that TV education might not afford children the opportunity to develop critical thinking skills and creative talents.

(3) *Instructional materials and methods.*—School leaders should always be willing to take a fresh look at their elementary schools, seeking ways to improve instruction through experimenting, trying new ideas, keeping open minds.

● Teachers, especially new teachers, want specific guides and teaching aids, within a flexible program.

(4) *Gifted children.*—Smaller classes, it was felt, would give teachers more time to stimulate talented boys and girls, and rich materials would provide greater opportunity to guide them. ● Although gifted children should be encouraged to do all they can, there is always danger in driving or pushing them.

(5) *Administrative and organizational practices and policies.*—There is need for research in school and class organization to determine the relative value of small-group and large-group instruction, the self-contained classroom, and departmentalization. School people should avoid selecting one plan or another without giving proper thought or study to the problems involved. Staff members should be willing to experiment with new ideas. ● Every promotion should be considered on its own merits and should be determined by what is best for the child.

(6) *Formalization, standardization, uniformity.*—Pressures are being exerted which may cause regressive practices in our schools—for example, more emphasis on standardized testing and the move to introduce more formalized education earlier. ● School leaders must stand for the things that are right for children, helping parents and coworkers in administrative positions, and must understand child growth and development. ● Because of factors concerning the physical development of young children, the kindergarten is not the place or time to begin the systematic teaching of reading.

(7) *The work of supervisors and directors of elementary education.*—The work of administrative leaders can be strengthened as they gain the skills and understandings needed to work with others. Supervision at its best is the work of helping the teacher. ● There is need to strengthen the position of the elementary principal as a key person in supervision.

(8) *Evaluating the instructional program and pupil progress.*—The quality of education is a live issue. Some cities plan surveys to stimulate evaluation of the school program and to determine steps needed for improvement. ● It is believed that surveys by educators and lay persons within the school district are more helpful than surveys by outside teams.

Studies and Research

Office staff conducted studies and research projects during the fiscal year on a number of the problems aforementioned. Among these were (1) a study on elementary school organization and administration, (2) a project attempting to bring together the research related to various plans of elementary school organization, and (3) a compilation of data for 1958–59 on kindergarten enrollment in city school systems.

In an endeavor to help elementary school educators decide how best to educate their talented children, the staff compiled information around four major questions: (1) How can the school, the home, and the community work together to provide needed educational opportunities for above average children? (2) What means shall be used to identify children with special talents? (3) Once these children have been identified, what plan shall be used to insure educational opportunities for their development? and (4) How can programs for these children be evaluated? A more detailed study on educational programs for talented children in elementary schools was in progress.

Physical Education in Urban Elementary Schools, an Office curriculum study in the area of physical education published in 1959, provided information on the classroom teacher and the special teacher of physical education, policies and procedures in the administration of the physical education program, organization and content of the program, and types of equipment and facilities provided for children. This study presented data gathered from school systems over the entire Nation. Other curriculum studies underway included one on early elementary education, another on science in the elementary schools, and a third on social studies in the elementary schools.

Throughout the Nation attempts were being made to solve the problems confronting elementary education. These problems were dealt with in various ways in programs and meetings of professional and lay organizations, in the Office of Education, and in the various State and local educational agencies. Undoubtedly, as judgments regarding school organization and programs are based increasingly on the findings of studies and research and the experience of leaders in education and related professions, children will be benefitted.

SECONDARY EDUCATION

The concern of the people that their high schools keep pace with the rapidly changing times was expressed in several ways in the past year, each of which had its effect upon the schools and upon the activities of secondary education specialists in the Office of Education.

Parents as well as other citizens were interested as never before in the quality of the secondary school, which was attended by approximately 80 percent of all the boys and girls between 14 and 17 years of age, and from which more than 60 out of every 100 youth of the appropriate age group are graduated each year. The National Defense Education Act of 1958 was one very tangible expression of the desire on the part of the public to improve the education of children.

A number of educational foundations, advisory committees, and professional organizations published statements on the need to improve, and suggested ways for improving, American education. All

of these statements were analyzed by Office specialists to discover implications involving Office of Education programs.

The Emphasis: Science, Mathematics, and Modern Foreign Languages.—This year saw the development of increased interest in the field of science, mathematics, and modern foreign languages, especially as the study of these subjects concerned the academically talented. Office staff members made firsthand observations of the changes taking place in various experimental centers where new curriculums, methods of teaching, and inservice professional education programs were being devised and tested.

In the fields of mathematics and science, studies were conducted of offerings and enrollments and of the status of mathematics and science education, covering such topics as facilities and equipment, the teacher, course content, and methods of instruction. *A Review of Research in Science Education* was prepared in cooperation with the National Association for Research in Science Teaching. In addition to these studies, a series of circulars, "Aids for Teaching Science and Mathematics," was developed.

Modern space age developments have had their effect on the secondary education program. This was evidenced by pupil interest in the sciences, including mathematics, and in aero-space materials, as well as in such school-centered activities as rocketry clubs, model airplane clubs, electronics clubs, and radio-control clubs. There were important implications, too, for other curriculum areas such as social studies, English, and mathematics. In addition to preparing and distributing materials to the schools on this and allied subjects, several staff members participated in the World Congress of Flight and in the National Aviation Education Council Conference.

As a result of the added interest in the study of foreign languages, there was evidence of longer sequences of foreign language study in the secondary schools, newer methods of developing the language skills, and a desire on the part of teachers for retraining as well as further training. The Office made every effort to assist in meeting these new needs and problems. It provided the services of a consultant for a major 1958-59 project of the National Association of Secondary-School Principals. A publication entitled *Modern Foreign Languages in the Comprehensive Secondary School*, which grew out of this project, is exerting an important influence on secondary modern foreign-language programs.

A project was in progress to determine from State departments of education the status of foreign languages in the secondary schools—enrollment, length of sequences, and languages taught. Another study begun in 1959 was designed to obtain more detailed information on the status of foreign-language education in individ-

ual high schools. These studies will furnish a means of comparison with past and future findings as the language scene continues to change.

One of the most significant developments during the past year was the growing interest in the academically talented—those ranking in the top 15 or 20 percent in the high school population. Great emphasis was placed upon identifying and educating these individuals more effectively. There was a marked increase in ability grouping and in programs of enrichment for, and acceleration of, these pupils. Several high schools offered advanced courses for which the talented could receive college credit. There was continuing demand for the bibliography, *The Education of the Able Student*, published by the Office in 1958.

The Trend: "Tightening Up" the School Program.—Technological advances and existing economic, cultural, and political problems have so increased the amount of learning needed today that school people and the public alike are questioning the adequacy of the length of the school day and of the school year. In some systems an extension of school time has been effected. The all-year school, sometimes referred to as the four-quarter plan, which was tried in some school systems a generation ago, and subsequently abandoned, has received renewed attention in several States and city school systems. In the light of this interest the Office issued a summary, with an annotated bibliography, bringing together information about the earlier experimental programs entitled *The All-Year School*.

The regularly recurring study *Statistics of Public Secondary Day Schools, 1958-59* was underway. This will reveal trends in type, size, and organization among the Nation's 26,000 public high schools.

There is a trend to increase high school requirements in general and the requirements in mathematics and science in particular. Several State departments of education have increased the total number of units required for graduation beyond the prevailing 16. Some have either increased or added a requirement in mathematics and science to the subjects all pupils must take for high school graduation. An Office of Education study of high school curriculum organization and graduation requirements in 50 large cities revealed the typical requirement to be 4 years of English, 2 or 3 years of social studies, and at least 1 year each of science and mathematics. Nearly a third of the cities required 2 years of mathematics for graduation and a third required 2 years of science.

A rather comprehensive study was being conducted by the Office to determine what high school programs were carried by 1957-58 graduates of varying abilities. Programs of pupils enrolled in high schools of different sizes were being studied separately.

The Goal: A Balanced Educational Program.—Throughout the school year 1958–59, certain educational leaders voiced with increasing emphasis the need for a balanced program to improve the quality of educational offerings for all youth in secondary schools. These leaders were concerned that certain fundamental areas of learning were being stressed disproportionately at the risk of neglecting, if not excluding, certain other fundamental areas of general education.

This would seem to be a concomitant of the current public interest in specific areas of learning felt to be neglected formerly, rather than a deliberate effort to deemphasize other equally important areas.

The organization of learning experiences for junior high school pupils, in particular, has received increasing attention since the end of World War II. One such form of organization cuts across the traditional boundaries of subject matter and is known by such terms as block-time, core, or common learnings. Classes meet together for a block of time of two or more periods and combine or replace subjects required of all pupils, such as language arts and social studies. *Block-Time Classes and the Core Program in the Junior High School*, an Office study published this year, revealed that among junior high schools with enrollments of 500 or more, nearly half had such classes. The study further revealed that block-time classes in the junior high school had increased 100 percent since 1949, when the last previous study was made.

Improved instruction in the use of the English language, which is basic to the study of all academic subjects, is a primary goal of the Office. In accordance with this objective, and the need to keep informed concerning the nature of the secondary school curriculum, the Office published *English Language Arts in American High Schools* this year. This bulletin analyzed the content of 256 local courses of study and 29 State courses in English and noted the changes which have taken place in high school English since 1932. The published report is being used throughout the United States by committees of English teachers wishing to improve their own English programs or to develop new courses of study.

Among the new developments discovered through this study of high school English programs were these: (1) more instruction given in reading comprehension; (2) literature about people in other parts of the world taught in grades 7 through 12; (3) instruction in speaking and writing related closely to the needs of youth in school, in the home, and in the community; (4) instruction given to upgrade pupils' selection and appreciation of mass media; (5) the nature of the English language and its power for communication taught through units on elementary semantics and propaganda. This study also revealed the need for sequential programs in English from elementary

school through high school and into college, especially in the teaching of grammar and usage.

Under the stimulus of the President's Council on Youth Fitness, school leaders and other citizens intensified efforts to fulfill the schools' responsibilities regarding the fitness of American youth. Particular attention was given to finding ways of strengthening and extending school programs of health education, physical education, athletics, and recreation. The Office cosponsored with the American Association for Health, Physical Education, and Recreation the National Conference on Fitness of Secondary School Youth. A report of the conference was published by the association.

The practical arts activities offered in industrial arts courses are essential to develop a balanced educational program and to aid students in understanding American technology. During the year an interest in improving the industrial arts curriculum was stimulated by the dissemination of *State Curriculum Guides for Industrial Arts*, the first Office report on a study of industrial arts course content.

A study and personal observation of Soviet schools by a staff member revealed that Soviet educators for some years have believed strongly in the "practical arts" for their educative values and are now including this required phase of instruction in their general education schools.

ADULT EDUCATION

During the past year increased emphasis was given adult education through its recognition by certain important national organizations and special events. Among these were The President's Science Advisory Committee, the National Education Association, the National School Boards Association, the American Association of School Administrators, and the American Education Week program. The American Association of School Administrators, in cooperation with the National Association of Public School Adult Educators and the U.S. Office of Education, developed four adult education programs for its annual meeting and made plans for yearly emphasis on adult education.

In enacting Public Law 85-908 (September 2, 1958) the 85th Congress set in motion a national undertaking directed toward the needs of older persons. The Act, known as the "White House Conference on Aging Act," states in the declaration of policy that the Federal Government shall work jointly with the States and their citizens to develop recommendations and plans for action in setting up adult education programs. In the pursuance of this and other purposes stated in the Act, many adult education agencies and groups were to be involved at national, State, and local levels.

In 1958-59 increased interest was shown in the revitalization of literacy and Americanization programs. Of particular importance

were the continued activity of the National Commission for Adult Literacy; the growing use of mass media in literacy education programs, such as the Baylor University Literacy Project and the Memphis TV Project; the organization of a National Foundation for Literacy Education; and the beginning effort of the Bureau of Immigration and Naturalization to revise and consolidate its educational materials used in the Americanization and citizenship education program. In line with this trend, the General Federation of Women's Clubs stimulated literacy classes at the local level through its member clubs. In recognition of the importance of this area, the Office of Education in 1958 appointed a Specialist in Fundamental and Literacy Education to conduct studies and provide leadership.

The year 1958-59 saw a growing interest in fundamental education programs for urban renewal and redevelopment. These educational programs—which were already underway in several major American cities, including Washington, Baltimore, and Chicago—have aimed at providing orientation and training for residents who are being displaced from slum or blighted areas.

For a number of years there has been an increasing concern among professional educators for the field of adult education. Approximately 15 universities in the United States now provide programs leading to a master's or doctor's degree in adult education; and 145 provide one or more courses in the field. Inservice training of local administrators and teachers has become commonplace, and at least 20 State departments of education have developed or are in the process of developing statewide professional educational experiences for local teachers, supervisors, and educational administrators.

An organization of professors of adult education received foundation support to evaluate present curriculum offerings and to develop new directions in graduate-level professional training for adult educators.

Five additional States during the past year, established a division of adult education within their departments of education, and selected a chief adult education officer to head this division.

During fiscal 1959 the Office began the first nationwide survey of adult education activities in public schools. A scientific sampling plan of local school districts of various sizes in all parts of the country will be used in gathering data such as enrollments and kinds of educational activities.

EXCEPTIONAL CHILDREN

The fiscal year 1959 was a year of unusual progress in the education of exceptional children. While interest was on all types, the focus was still on the mentally retarded. For the first time, Federal legislation specifically in the areas of special education was passed. Because of

the serious shortage of teachers for the mentally retarded, the Congress enacted Public Law 85-926, designed "to encourage expansion of teaching in the education of mentally retarded children through grants to institutions of higher learning and to State educational agencies." While the improvement of classroom teaching is the ultimate purpose of this law, the first objective is necessarily the training of promising persons for teacher preparation roles. During the year, the Office staff and representative people in various parts of the Nation planned the program to be implemented under this law.

The Office engaged in a cooperative project on mental retardation with the Office of Vocational Rehabilitation and the American Association on Mental Deficiency. The project resulted in the publication *Preparation of Mentally Retarded Youth for Gainful Employment*.

Nationwide interest continued in the attempt to elevate professional standards for personnel in special education. The Office of Education, in cooperation with national leaders, completed the bulletin *Professional Preparation of Teachers of Exceptional Children*, which is a summary of reports from a broad study extending over a number of years. *Teachers of Children Who Are Hard of Hearing*, a report based on the same study, went to press during the year. A bulletin, *Children With Speech and Hearing Impairment*, describing what schools can do for such children, was released. Data for the recurring study on State certification requirements for teachers of exceptional children were collected. Office staff were preparing a review of research on the preparation of teachers of exceptional children for an issue of the *Review of Educational Research*. The most extensive listing in the review is the Office of Education series of studies.

Cooperative activities for exceptional children during 1959 included 3 conferences called by the Commissioner: 1 with State directors of special education on current national and statewide issues; another with local directors of special education on program development; and a third with about 40 representatives of 23 specialized national organizations interested in the education of exceptional children.

The year 1959 was marked by the passage of new State and Federal legislation for the further education of exceptional children. Laws passed in New York and New Jersey, for instance, created new possibilities and defined more clearly the responsibilities of public schools toward emotionally disturbed children. A current study on education for exceptional children showed a renewed interest in program planning.

While the Office of Education through the years has worked with special educators from other parts of the world, recently there has been an increased demand for consultation, information, and more definitive planning on an international basis. The Office of Education

held a number of conferences with foreign educators during the fiscal year. One of the most helpful associations was a visit of the head of the Special Services Branch of the British Ministry of Education.

Several conferences were being cooperatively planned for the coming year. These included the International Bureau of Education Conference; the Eighth World Congress of the International Society for the Welfare of Cripples; and the Seminar on Mental Retardation.

CIVIL DEFENSE EDUCATION PROGRAM

The United States today is faced with the major problem of providing civil defense against manmade and natural, wartime and peacetime disasters. Many, however, lulled into inaction by an inherent sense of security or by apathy, still believe either that distance provides defense or that nothing adequate can be accomplished by civil defense measures.

In the National Plan for Civil Defense and Defense Mobilization, the general public has been assigned specific responsibility for action in time of disaster. Knowledge acquired through training is the only basis on which individual citizens can take effective action. This knowledge can best be made available through programs of organized survival training in the Nation's schools.

In January of 1959 an agreement was signed between the Office of Civil and Defense Mobilization and the Department of Health, Education, and Welfare. Under this plan the Office of Education established the Civil Defense Adult Education Program and agreed to direct and coordinate the teaching of civil defense principles through existing State adult education facilities. Local adult educators were to be trained to teach individual, family, and community protection and survival. In implementing this program, the Office had negotiated contracts by the end of the fiscal year with State departments of education of Florida, Kentucky, Minnesota, and Texas. In close cooperation with national, State, and local agencies, the Office directs the overall development and coordination of the program, serves as consultant, provides materials and services, and aids in publicizing information. Plans are being made for expansion into additional States.

School Assistance in Federally Affected Areas

Federal financial assistance is authorized by the provisions of Public Laws 874 and 815, as amended, to school districts on which activities of the Federal Government have placed serious financial burdens. Under these companion laws,¹ the Federal Government pays a portion

¹ Enacted by the 81st Cong. in September 1950, Public Law 874 provides assistance for current operating expenses and Public Law 815 provides assistance for the construction of school facilities.

of the cost of the education of children who reside on, and/or reside with a parent employed on, tax-exempt Federal property, such as atomic energy and military installations, flood control and reclamation projects, Indian reservations, and national parks and forests. In addition, Federal assistance is authorized where Federal contracts with private industrial firms cause such a sudden and substantial increase in school enrollment, that affected districts need additional funds to meet budgetary needs.

For the fiscal year 1959, approximately \$150 million has been or will be paid to school districts under the provisions of Public Law 874, representing payments for the attendance of approximately 171,200 children who reside on Federal property with a parent employed on Federal property, and for 1,217,000 children who either reside on Federal property or reside with a parent employed on Federal property. This is approximately an 18-percent increase over the amounts paid on this program the preceding fiscal year and a 15-percent increase over the preceding year in the total number of children for whom payments were made. A total of 3,762 school districts in the 49 States, Hawaii, Puerto Rico, Wake Island, Guam, and the Virgin Islands were eligible for program assistance during the year. These school districts had an estimated total enrollment of 9.5 million children, or about one-fourth of the enrollment of all children attending public elementary and secondary schools. The number of eligible participating school districts has increased 221 percent since 1951.

The table below presents significant figures for the 9 years the program authorized by Public Law 874 has been in operation:

| Fiscal year | Number of eligible applicants | Net entitlements of applicant districts—all sections | Total current expenditures of applicant districts | Percent of total current expenditures financed by Public Law 874 funds |
|-------------------------|-------------------------------|--|---|--|
| 1951..... | 1, 172 | \$29, 686, 018 | \$520, 370, 000 | 5. 6 |
| 1952..... | 1, 763 | 47, 814, 282 | 825, 926, 541 | 5. 8 |
| 1953..... | 2, 212 | 57, 696, 592 | 1, 040, 424, 071 | 5. 5 |
| 1954..... | 2, 524 | 71, 860, 087 | 1, 284, 960, 000 | 5. 6 |
| 1955..... | 2, 683 | 75, 276, 843 | 1, 450, 700, 000 | 5. 2 |
| 1956..... | 2, 859 | 85, 664, 973 | 1, 754, 530, 000 | 4. 9 |
| 1957..... | 3, 318 | 111, 352, 432 | 2, 156, 450, 000 | 5. 2 |
| 1958..... | 3, 327 | 122, 456, 546 | 2, 578, 486, 000 | 4. 8 |
| 1959 ¹ | 3, 762 | 157, 390, 914 | 3, 083, 668, 609 | 5. 1 |

¹ Estimated.

The volume of school construction approved under Public Law 815 continued at about the same level in fiscal year 1959 as in each of the past several years. During the year \$86,924,140 was reserved for 407 projects under all sections of the law. One of the principal reasons for the continued high level of school construction assistance is the construction of family housing units for military personnel under

title VIII of the National Housing Act—the Capehart Housing Program.

Payments made during the year were for increases in school enrollment of federally connected children in the 2-year increase period, from July 1, 1957, to June 30, 1959, or from July 1, 1958, to June 30, 1960.

From 1950 through fiscal 1959, a total of \$901,450,000 had been appropriated by the Congress to carry out the provisions of Public Law 815. This amount included \$75,400,000 appropriated in fiscal year 1959 for school enrollment increases expected to occur through the 1960 fiscal year. Of the total appropriated, \$895,725,000 was used for project construction and \$5,719,000 for services provided by other Federal agencies.

When the federally aided projects included under existing authorizations are completed, some 1,687 new elementary and secondary schools and 2,831 additions to elementary and secondary schools will have been provided, which will total approximately 48,300 classrooms and related facilities to house an estimated 1,403,041 children. This total includes 220 projects which will provide an estimated 1,260 classrooms for approximately 36,000 children, mostly Indian children, living on Indian reservation land.

LEGISLATION

The assistance program is on a permanent basis for children who live on Federal property with a parent employed on Federal property and children for whom the Federal Government pays the total educational costs, whereas assistance for other categories of children currently provided under the Acts terminates June 30, 1961. Included in these categories are children who live with parents in private, taxable homes, but whose parents are employed on Federal property; and those who live with parents employed in private industrial firms whose Federal contracts have caused a sudden and substantial increase in school enrollment.

Higher Education

During the past year, much work and interest have been centered on activities authorized by the National Defense Education Act. In order to implement the provisions related to higher education, the Office of Education established the Financial Aid Branch in the Division of Higher Education.

Problems of mounting complexity and increasing severity which face administrators, boards, and others concerned with higher education, have brought numerous requests for assistance and information to the Office of Education during fiscal 1959.

During the year, Office staff members participated in the organization and planning of the first American Seminar in the Humanities. This seminar was the first major effort to pool conference resources on higher education, business and industry, and government and international organizations around the common theme of the humanities. The topic of the 1959 seminar, first of an annual series, was promotion of intercultural understanding as a step toward international peace.

Many problems reported as acute in the 1958 annual report have continued into 1959. For example, enrollments for 1958-59 in institutions of higher education were approximately 210,000 greater than in 1957-58 (see table 1). Instead of an estimated minimum of about 30,000 new college teachers needed for this influx of students and for replacement of teachers lost through retirement, death, or transfer to another occupation, only about 13,400 were actually recruited. Estimates of the number of new full-time college teachers needed during the next 10 years have varied from about 300,000 to more than 500,000. Slightly less than one-fourth (23.8 percent) of the new full-time college teachers employed in degree-granting institutions in 1958-59 held the doctor's degree—a proportion which has remained about the same since 1956-57 but which is significantly lower than in preceding years (26.7 percent in 1955-56, 28.4 percent in 1954-55, and 31.4 percent in 1953-54). Of the approximately 9,000 persons who completed earned doctoral degrees in 1958-59, less than one-half entered the teaching field immediately.

A number of provisions of the National Defense Education Act are pointed toward the critical need for college teachers. Title IV seeks to increase the supply of college and university teachers by providing fellowships for graduate study and by increasing the breadth of graduate programs. Title VI provides for foreign-language fellowships for graduate students preparing for college teaching.

STUDIES AND SURVEYS

To furnish background statistics and other data which are necessary to solve the many problems issuing from these and other conditions in the area of higher education, the Office of Education conducted a number of important studies and surveys during the past fiscal year. Some of these are new studies, some are recurring or continuing, and are concerned with the following areas: organization and administration, legislation, educational programs, facilities, and general studies. Short summaries of the most important studies follow.

Organization and administration.—A study of State boards reviews and analyzes the structural organization and functions of these boards in relation to the responsibility and control exercised over higher education institutions within the State. ● Criteria providing a guide on the feasibility of establishing

2-year colleges are currently being studied. Data on higher education planning and management provide an annual study of higher education current-operations data such as salaries, tuition, room and board rates, buildings completed. ● A survey of endowment investments contains information concerning administrative practices of 200 colleges and universities in handling endowment investments. ● Studies of institutional internal organization provide information on plans of higher education institutions for dealing with increased enrollments. ● Factors related to application, admission, registration, and persistence in college were studied to discover background and casual relationships to these college vital statistics as revealed in publicly controlled and private institutions. ● A preliminary report on "College and University Faculties: Recent Personnel and Instructional Practices," appeared in the November 1958 issue of *Higher Education*. The final published report will appear in the summer of 1960.

Legislation.—A study of State legislative measures related to higher education, enacted during fiscal year 1958, discloses that 13 States and Puerto Rico authorized new or continuing surveys or were planning expanded programs of higher education. Eighteen States, Puerto Rico, and Guam enacted legislation pertaining to bond issues, building planning and construction, and capital outlay appropriations. Eight States showed concern about growing enrollments in higher education by considering measures for the expansion of existing higher education institutions or for the creation of new ones.

Educational programs.—A survey of college enrollment and degrees in agriculture gives department enrollments and number of degrees granted in various agricultural curriculums. A second study examines data from admission and enrollment forms of land-grant colleges to forecast potentialities of students enrolled. ● A survey designed to analyze trends in engineering, especially in curriculum development, for the period 1949–59 is underway. Completed during the fiscal year is the annual study of organized occupational curriculums and of engineering enrollments and degrees. ● A study for the period 1948–58 of the number of earned degrees in the humanities in relation to those in social science and the natural sciences is currently being conducted. ● An analysis of degree programs in general social sciences based on a sampling of 312 institutions has just been completed. The study indicated that such programs are designed primarily for students who are, or expect to become, social science teachers. ● A survey is underway to ascertain recent changes in curriculum and course content in degree-granting institutions.

Facilities.—The Facilities Inventory Survey is a five-part study of higher education facilities to provide information for institutional management and planning. The key unit on physical facilities is now being prepared. This unit will contain data on space devoted to institutional programs, and the age, condition, and type of construction of each building on the campuses. Earlier studies have collected similar data for the period 1951–55 and data on planned plant expansion to 1970. Future studies will compare actual needs at the time with previously made plans and will report on new campuses.

General studies.—Recommendations growing out of a survey of the public higher educational system of North Dakota, conducted by the Office of Education during the year, were promptly adopted into the State's legislative program. Several have been put into operation, and others are expected to be in effect soon. The success of this survey brought requests from a number of other States for similar surveys. ● A bibliography of articles and other printed references dealing with college and university administration over the past 10 years is now being compiled by the Office. ● An analysis is also being made of recent State and interinstitutional studies of higher education needs. The

analysis of 38 separate higher education studies, begun or completed since 1955 in 24 States, shows that 23 of these studies are concerned with 5 or more major problem areas. This denotes the examination of needs on a comprehensive rather than a narrow scale.

A series of articles on executive development programs in collegiate schools of business appeared in *Higher Education* during the fiscal year. A monthly newsletter, *Business and Public Administration Notes*, serves as communication between the Office of Education and leaders in public administration throughout the Nation. Requests for information and advisory service reflect the increasing importance attached to the business and public administration area of higher education. Two significant publications, *Teaching as a Career* and *Teaching Opportunities*, are designed to stimulate and direct capable men and women toward careers in education, and to acquaint teachers and others with job opportunities in the United States and foreign countries.

The Clearinghouse of Studies on Higher Education, a program begun in fiscal 1959, was instituted by the Office of Education to collect information on studies made by or for individual institutions and to provide a source from which the information thus collected might be procured. During the past year the Clearinghouse has extended itself beyond bibliographic function to include consultative services, by making its files available to visitors from educational communities and by answering inquiries.

The Clearinghouse operation includes the publication of *Reporter*, *Special Reports*, and *Case Book*. *Reporter* is a compilation of basic bibliographical data on each study in the files, together with other pertinent information. *Case Book* reports significant higher educational programs recently instituted, and *Special Reports* performs a similar function for more general programs and developments. When the information in the Clearinghouse files is analyzed, certain implications for the future may be seen. These are condensed and issued as trend studies at intervals throughout the year.

LAND-GRANT COLLEGES

For the year ending June 30, 1959, the Office administered a total of \$5,051,500 to land-grant colleges and universities. The Office responsibility in this program is to certify that each State and outlying part of the United States is entitled to receive its share of the annual appropriation and to certify the amount it is entitled to receive. See table 3, column 2, for distribution of funds by States.

Vocational Education

The program of vocational education continued to expand in fiscal 1959. All States and other areas eligible for Federal funds for use in Federal-State vocational education endeavor were operating programs. Total expenditures of Federal-State-local funds were in excess of \$200 million—an alltime high; enrollments of both youth and adults exceeded 3.75 million. Training of highly skilled technicians under the National Defense Education Act was begun.

AGRICULTURAL EDUCATION

Agricultural education leaders, including Office of Education specialists, met in Chicago for a 4-day planning conference to discuss

agricultural education in the light of changing social, technological, and economic conditions. Much information and many ideas and plans which were developed at this conference will be incorporated in new State plans for programs of agricultural education.

Office of Education specialists, in cooperation with the American Vocational Association, began a nationwide study of the characteristics of public high school vocational agriculture programs which have proved successful in instructing out-of-school young men who are faced with increasingly difficult farm problems. The first phase of the study was completed in 1958, and was used to develop criteria for an experimental study carried on in 280 rural high schools which voluntarily adapted their program of instruction to meet the new standards. A 3-year experiment, undertaken in these schools, is expected to result in a greatly improved program of study.

During the year, Office staff members worked with State agencies to promote an improved curriculum for teachers in vocational agriculture. The staff emphasized that the curriculum should be based on a broad and thorough foundation of instruction in general education, natural sciences, specialized and general fields of agriculture, and educational methods, including practice teaching and participation in a wide range of agricultural activities and organizations.

In most States, inservice training, often with graduate credit, was provided at colleges and experiment stations through short, intense technical agricultural courses in the areas of farm mechanics, farm management, and other areas suited to the teachers' needs. There was also demand for courses in professional education areas.

DISTRIBUTIVE EDUCATION

The importance of education in the field of distribution is appreciated when it is understood that a balanced distribution is essential to a healthy economy. Educational programs in this field encourage research to improve distributive techniques and foster an understanding of the social and economic responsibility of those engaged in distribution.

The distributive education program is based on a Federal-State cooperative relationship. During the year, State representatives assisted Office specialists in conducting three significant studies to be published in fiscal 1960: (1) *Role of Teacher Education in Distributive Education*, (2) *Supervision for the Improvement of Instruction in Distributive Education*, (3) *A Study of Curriculum Development in the Distributive Education High School Cooperative Program*.

Distributive education programs have been most successful in cities of 15,000 to 250,000 population. Some metropolitan areas, however, have not profited as have others. In order to assist administrators in

these metropolitan areas in serving educational needs in distribution, the Office, with the cooperation of a major university, initiated a nationwide study to determine successful practices in distributive education in metropolitan areas.

Business groups cooperated with national, State, and local agencies in initiating projects for improvement of educational programs in distribution. These projects were so planned that they could readily be put into effect at local community levels. Some of the projects initiated during the year involved national organizations which worked through their area, State, or local representatives to cooperate with leaders in distributive education.

Backed by Government concern for small business, the distributive education program assumed a major role in the development of management courses for small businessmen. A bulletin entitled *Management Training for Small Businesses* was prepared and sent to distributive education personnel throughout the Nation. Reports from the States, showing increased enrollment in management programs for small businessmen, indicated extensive use of this bulletin.

TRADE AND INDUSTRIAL EDUCATION

The impact of recent economic, sociological, and technological changes has created a constantly growing demand for more skilled manpower. Untapped reservoirs are being sought; expanded training programs are being set up. A significant trend is the continuing increase in enrollments in training courses and in participation by girls and women—not only in the traditional women's fields but also in the newer occupations and those formerly open only to men.

The importance of advanced training programs for employed women is seen in the increase in 1959 in number of women enrolled in supervisory training programs and in extension classes in federally reimbursed trade and industrial education. In the extension classes more women than men were enrolled.

Many States have accelerated the growth of their supervisory personnel development programs in response to a 22-percent increased enrollment in this area over a 3-year period ending in 1957-58. State supervisors of trade and industrial education and Office of Education staff are planning interregional meetings to speed the preparation of competent teachers for training of key supervisory personnel in industrial establishments.

A more effective school-shop safety program, as a contribution to occupational safety, emerged from an Office-sponsored conference, which was attended by State personnel and representatives of industrial organizations. Another U.S. Office of Education conference, attended by State educators in trade and industrial education, sought ways of making adequate instructional materials available. The

Office will continue to cooperate with the National Professional Instructional Materials Committee, named at the Conference to coordinate instructional-materials activities among States, industries, and labor organizations.

More than 200 State supervisors, teacher trainers, and local directors participated in the National Conference on Trade and Industrial Education held at Kansas City in the spring of 1959. Office staff members participated in discussions which led to the development of long-range cooperative plans involving instructional materials, leadership training, supervisory training and research.

PRACTICAL NURSING

Practical nurse education, including preparatory programs for dental and medical assistants and nursing personnel in allied health occupations, continued to grow in 1959. Most States held annual workshops for instructors and supervisors, and some held more frequent conferences for smaller area groups. The new Office of Education bulletin, *Guides for Developing Curricula for the Education of Practical Nurses*, proved helpful as Office staff met with State personnel during these meetings to discuss ways of improving the curriculum.

As a result of a joint Office of Education-State project, the Office published a list of schools offering approved practical nurse programs. The list will be useful to guidance counselors.

HOME ECONOMICS

In addition to the problems faced by educators in general, home economics educators are faced with a specific problem—lack of public understanding of the importance of the school's program in home economics to the welfare of the Nation's families in solving vital problems of physical and social living.

As home economics curriculum builders assessed homemaking needs at workshops, in statewide committees, and in local schools during 1959, they kept in mind recent social, educational, and economic developments which have strongly affected family life—the mobile family, earlier marriages, working mothers, population trends, new light on human growth and learning, and changing needs of local communities. Against a background of such factors, Office of Education staff members cooperated at regional conferences with State personnel and other groups in studying the following problems: the placement of courses and achievements to be sought at junior and senior high school level, class size and teacher-pupil ratio, pupil differences, programs for the talented, increasing demands on teachers, shortage of qualified teachers, and teacher education programs. Attention was centered on achieving and maintaining “quality” programs.

The Office of Education cooperated with the American Home Economics Association in a statistical study on the supply of home economists. While the shortage of home economics teachers, revealed in the study, totaled only about 400, a much larger number of the total 34,000 teachers were employed on temporary certificates. It was predicted that more than 5,000 new teaching positions will be open in the secondary schools by 1965.

The National Conference on Homemakers Services, sponsored by the Office of Education during 1959, emphasized the importance of extending the work of one of its more recently inaugurated programs, homemakers services. This program offers, under the auspices of social work and health agencies, family education in the areas of home economics, the trades and industries, and practical nursing. One of the major problems confronting this program is the training of field-workers for these services.

The Office of Education cooperated with two groups of colleges in research projects during fiscal 1959. These projects were concerned with (1) the characteristics of prospective home economics teachers, (2) an evaluation of results of certain aspects of the home economics program, and (3) a study of secondary school home economics programs in various patterns of organization.

The Office also assisted in planning the Ninth International Congress on Home Economics, held at the University of Maryland under the joint sponsorship of the American Home Economics Association and the Canadian Home Economics Association. Thirty-six discussion groups were organized and directed by the Office and yielded reports on important aspects of home economics research, education, and careers.

International Education

Education assumed great importance in international affairs in fiscal 1959. Throughout the world, there was an increasing awareness of the relation of education to national strength. This awareness was reflected in the large number of requests from new nations of the world for American help in the establishment of public education.

The Office of Education cooperated with the Department of State in a survey of international educational affairs. The Commissioner participated in a conference called by the Director of the new Bureau of International Cultural Affairs. The Office actively supported the Secretary of State in his efforts to coordinate and improve national activities in international education.

At the request of the Department of State and a number of foreign governments, the Office provided educational services and professional

advice. The Office was also asked by the Department of State and by United Nations agencies to help in the formulation of policies in international education. The Commissioner continued as chairman of an Interdepartmental Committee on International Educational Policy. The Assistant Commissioner in charge of international education was requested by the National Academy of Sciences to participate as the education member of a team of specialists who made a survey of education in Africa south of the Sahara.

COMPARATIVE STUDIES

Expansion of its comparative education studies of Communist countries—particularly the U.S.S.R. and Eastern Europe—was made possible by additions to the Office of Education staff during fiscal 1959. Studies were made and reports issued on higher education, textbooks, examinations, publications, teacher education, and teaching in the physical and social sciences. The continued exchange of publications between the United States and the Soviet Union provided substantial resources for both staff and other research workers to study new developments in Soviet education and cultural programs for children, youth, and adults.

During the year, as part of an official exchange, a group of nine education specialists from the U.S.S.R. reciprocated the visit of the American team headed by the U.S. Commissioner of Education which had completed its visit to the Russian schools and colleges during 1958. These Soviet educators represented all levels of general and vocational education in their vast country. To continue the exchanges this year a study group of three Office of Education staff members visited schools and teacher-training institutions in the U.S.S.R. particularly to observe developments in the teaching of mathematics, science, and polytechnical education (industrial arts and work experience), and to study the relationships of these subjects to the whole general education curriculum. A report of their observations will be prepared and published during the next fiscal year. The group spent 1 week in Poland to become acquainted with the school systems there and to renew official exchanges between the two countries.

The year also saw the recruitment of staff and initiation of programs for the study of educational developments in Communist China and in Africa. The assurance of a continuing supply of educational data and documentation is the first requirement for comparative studies on these areas. Substantial progress has already been made in obtaining a steady flow of information on educational developments in both China and Africa.

The following comparative education studies were published during the year: *Japan: Three Epochs of Modern Education* and *Brazil:*

Education in an Expanding Economy. Others to be issued in fiscal 1960 are *Education in the Soviet Zone of Germany* and *Education in the Republic of Haiti.*

EVALUATION OF EDUCATIONAL CREDENTIALS

This year the Office of Education continued to evaluate the educational credentials of persons who have studied abroad and wish to pursue their education or to practice their profession in the United States. Although school officials are responsible for deciding how such persons shall continue their studies here, and State boards of licensure are responsible for determining the status of trained professionals, they may request the Office of Education to provide factual information and advisory interpretations of foreign educational experience in terms of U.S. education. In spite of the descriptive and evaluative information routinely supplied to these officials on a series of data sheets issued by the Office, nearly 5000 requests for information and advice were received during the year.

EDUCATIONAL MATERIALS LABORATORY

The Educational Materials Laboratory, serving approximately a thousand visitors yearly, the majority of them educators from abroad, expanded its collection of trade books and textbooks, which are widely used by teachers and children in schools of the United States. The EML displays a representative collection of approximately 10,500 such volumes and about 600 professional education books.

To keep curriculum specialists and classroom teachers both here and abroad informed of recent publications for classroom use, the EML has resumed publication of an earlier newssheet telling of recent acquisitions and activities.

INTERNATIONAL BUREAU OF EDUCATION

The first year of U.S. membership in the International Bureau of Education was stimulating in the opportunity it provided for face-to-face exchange of points of view on educational matters. The annual conference on public education held each July in Geneva, sponsored jointly by the IBE and UNESCO, brings together representatives of more than 70 countries, each of which provides a report of developments in education during the previous year. This conference, in which members of the Office of Education staff regularly participate as delegation members, provides the best single source of information on what is happening around the world in the education of children, youth, and adults. From such discussions delegates can assess the values each country considers important for its oncoming generation.

The past year was an important one in UNESCO's program, and the Office of Education cooperated in every way possible by preparing

program suggestions, by participating in planning sessions both here and at UNESCO's General Conference at the Paris headquarters, and in other technical meetings. The *World Survey of Education*, published by UNESCO in 1958, includes a substantial section on education in the United States, prepared by the Office of Education. During 1959, material for another volume in this series was completed. The worldwide clearinghouse function served by UNESCO is possible only with the cooperation of ministries of education and central government agencies responsible for such informational services.

INTERNATIONAL EDUCATIONAL EXCHANGE

In 1959, the Office of Education, under its working agreement with the International Cooperation Administration, provided training programs for 647 participants from 46 countries. The Far East, especially Thailand, Indonesia, and the Philippines, continued to be well represented. There was a marked increase of participants from Africa. The trend was toward more short-term, high-level participants who come to observe rather than to receive sustained training. Whereas programs in the past tended to emphasize broad areas such as elementary, vocational or teacher education, the past year showed a marked increase in specialized fields such as guidance, tests and measurements, and school building construction.

Special group projects included a Yugoslavian team in vocational education; a Moroccan group in rural education; a Turkish delegation to study laboratory schools; a Sudanese team in technical education; and vocational education groups from Brazil, Korea, and Spain.

Programs for the Christmas holidays and for the summer months were expanded. The hospitality centers of the University of Georgia, Michigan State University, and of the cities of Chicago, Denver, San Francisco, New York, and Philadelphia provided extensive services. Summer seminars were conducted at Wayne State University in industrial education, at Stout State College in vocational teacher training, and at the Agricultural and Mechanical College of Texas in vocational agriculture.

Teacher Development Program

The Teacher Development Program, which the Office administers in cooperation with the International Educational Exchange Service of the Department of State, showed an increase from 352 visiting educators in 1958 to 419 in 1959. The number of participating countries increased from 54 to 59. The regular program consisted of four groups in the teaching of English as a second language; two groups each in elementary education, American civilization, and secondary education; and one group each in administration and super-

vision, and vocational education. Individual itineraries were prepared for a number of participants at an advanced, specialized level.

The success of the teacher development workshop at the University of Puerto Rico in 1958 warranted the expansion of this activity. Two workshops were held in 1959—one in October for participants from South America, and one in February for the Caribbean and Central American area. A total of 87 educators participated in the two programs. The large number of applications for available grants indicated the continuing popularity of the Teacher Development Program throughout the world.

Teacher Exchange Program

In 1959 the Teacher Exchange Program showed an increase of 100 participants over 1958, reaching a total of 650 going to or coming from over 40 countries. One country, Peru, was added to the program for the first time, making a total of 16 countries involved in direct, two-way exchanges. Seminars were conducted abroad for American teachers of French, German, Spanish, Latin, and European or world history. The first seminar for American school administrators, conducted in France and the Netherlands in February and March 1959, was an outstanding success. Over 500 applications were received for the 20 grants. Two similar seminars were announced for the coming year, one to be held in France and Finland, the other in Italy and Norway. Reports from superintendents continue to endorse and support the interchange program.

Services varying from single appointments to complete itineraries were provided for a large number of secondary and nonprogram visitors. The former are participants in U.S. Government programs for which the Office does not have primary responsibility; the latter are visitors who do not have U.S. Government grants and are referred to the Office by their own governments, by foundations and other agencies, or who come to the Office of their own accord.

EDUCATION MISSIONS

The Office of Education continued its work with the International Cooperation Administration in the development of technical assistance programs in 45 countries of the world. A total of 205 educational specialists were carefully selected, recommended to, and approved by ICA to fill future vacancies in these countries. Approximately 400 educational specialists, exclusive of college contract employees, are working to improve educational programs in these lands.

The Office was also called upon to utilize the competencies of its specialized staff to furnish professional and technical support on a great number and variety of educational problems encountered by ICA educational specialists and their host government counterparts. The Department of State requested assistance in finding candidates

for 11 positions in various UNESCO assignments throughout the world. The names of 35 qualified educational specialists were submitted to the Department of State to be considered by UNESCO.

Table 1.—Enrollment in the continental United States, 1957-58 and 1958-59

[Office of Education estimates]

| School | Year | |
|--|------------|------------|
| | 1957-58 | 1958-59 |
| <i>Kindergarten through grade 8:</i> | | |
| Public school system (regular full-time)..... | 26,037,000 | 26,780,000 |
| Nonpublic schools (regular full-time)..... | 4,466,000 | 5,060,000 |
| Other schools ¹ | 167,000 | 170,000 |
| Total kindergarten through grade 8..... | 30,670,000 | 32,010,000 |
| <i>Grades 9 through 12:</i> | | |
| Public school system (regular full-time)..... | 7,399,000 | 7,840,000 |
| Nonpublic schools (regular full-time)..... | 942,000 | 1,010,000 |
| Other schools ¹ | 83,000 | 90,000 |
| Total grades 9-12..... | 8,424,000 | 8,940,000 |
| <i>Kindergarten through grade 12:</i> | | |
| Public school system (regular full-time)..... | 33,436,000 | 34,620,000 |
| Nonpublic schools (regular full-time)..... | 5,408,000 | 6,070,000 |
| Other schools ¹ | 250,000 | 260,000 |
| Total kindergarten through grade 12..... | 39,094,000 | 40,950,000 |
| <i>Higher education:</i> | | |
| Universities, colleges, professional schools, junior colleges, normal schools, and teachers colleges (degree-credit enrollment)..... | 3,380,000 | 3,590,000 |
| Total elementary, secondary, and higher education..... | 42,474,000 | 44,540,000 |

¹ Includes Federal schools for Indians, federally operated elementary-secondary schools on posts, model and practice schools in teacher training institutions, subcollegiate departments of colleges, and residential schools for exceptional children.

Table 2.—Supply and demand for elementary and secondary public and nonpublic school teachers, 1958-59 ¹

| Item | Elementary and secondary | Item | Elementary and secondary |
|--|--------------------------|--|--------------------------|
| <i>Supply</i> | | <i>Demand</i> | |
| Total teachers 1957-58..... | 1,436,000 | Total teachers 1957-58..... | 1,436,000 |
| Less emergency teachers 1957-58..... | 91,500 | Teachers needed to meet increase in enrollment in 1958-59..... | 57,000 |
| Total qualified teachers 1957-58 | 1,344,500 | Total demand 1958-59..... | 1,493,000 |
| Less 10.9 percent turnover of qualified teachers ² | 146,500 | Teachers needed in addition to new supply of qualified teachers..... | 182,000 |
| Qualified teachers returning for 1958-59..... | 1,198,000 | | |
| Emergency teachers qualifying for 1958-59..... | 23,000 | | |
| New supply of qualified teachers (83.3 percent of elementary and 67.8 percent of high school teachers trained in 1957-58)..... | 90,000 | | |
| Beginning and continuing qualified teachers 1958-59..... | 1,311,000 | | |

¹ This table is a revision of figures released in the summer of 1958. The changes are due primarily to revised reports received from the schools, and to the increased turnover rate mentioned in footnote 2.

² This figure for the number of qualified teachers not returning to classrooms because of death, retirement, marriage, or taking a position in some other field is estimated on the basis of a 10.9-percent turnover rate. The total is approximately 46,000 higher than would be obtained by using the turnover rate of 7.5 percent employed in previous years. The advisability of using the new rate was indicated by the results of a survey being conducted by the Office of Education.

Table 3.—Grants to States, Office of Education for fiscal year 1959¹

| States and outlying parts of the United States | Colleges for agriculture and mechanic arts | Cooperative vocational education | School construction and survey (Public Law 815) | Maintenance and operation of schools (Public Law 874) | Library services | National Defense Education activities | Total |
|--|--|----------------------------------|---|---|------------------|---------------------------------------|---------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Total ² | \$5,051,500 | \$38,353,194 | \$66,096,593 | \$132,073,364 | \$5,362,445 | \$43,958,119 | \$290,395,216 |
| Alabama..... | 100,541 | 990,257 | 1,578,114 | 3,087,204 | 161,369 | 1,710,314 | 7,627,800 |
| Alaska..... | 71,283 | 86,519 | 961,323 | 5,122,587 | 40,000 | 58,650 | 6,340,363 |
| Arizona..... | 77,477 | 205,553 | 2,621,924 | 3,157,506 | 63,528 | 18,430 | 6,144,419 |
| Arkansas..... | 89,047 | 783,605 | 259,730 | 746,984 | 130,203 | 367,176 | 2,376,747 |
| California..... | 175,599 | 2,013,197 | 13,385,735 | 24,857,719 | 184,862 | 3,180,840 | 43,797,456 |
| Colorado..... | 83,212 | 340,562 | 2,747,927 | 3,324,256 | 74,826 | 302,752 | 6,873,542 |
| Connecticut..... | 90,028 | 339,495 | 589,936 | 1,198,953 | 68,413 | 553,504 | 2,840,225 |
| Delaware..... | 73,172 | 163,207 | 10,010 | 311,428 | ----- | 133,484 | 691,302 |
| Dist. of Columbia | ----- | 145,070 | ----- | ----- | ----- | 51,379 | 196,449 |
| Florida..... | 97,644 | 628,510 | 3,790,654 | 3,967,289 | 129,583 | 1,385,466 | 9,998,548 |
| Georgia..... | 104,360 | 1,158,760 | 628,417 | 3,693,022 | 172,959 | 2,050,303 | 7,807,822 |
| Hawaii..... | 74,985 | 178,650 | 2,044,041 | 2,354,720 | 50,927 | 176,860 | 4,880,185 |
| Idaho..... | 75,871 | 228,436 | 689,231 | 912,213 | 83,293 | 171,542 | 2,160,588 |
| Illinois..... | 156,905 | 1,638,313 | 1,594,022 | 2,271,067 | 177,739 | 2,392,691 | 8,230,738 |
| Indiana..... | 109,244 | 962,773 | 966,886 | 686,382 | ----- | 1,628,077 | 4,553,364 |
| Iowa..... | 96,145 | 841,097 | 34,742 | 362,950 | 105,849 | 1,108,798 | 2,449,583 |
| Kansas..... | 89,005 | 573,902 | 1,243,224 | 3,541,652 | 64,543 | 804,076 | 6,316,404 |
| Kentucky..... | 99,374 | 1,007,470 | 105,517 | 975,434 | 171,239 | 1,563,999 | 3,923,035 |
| Louisiana..... | 96,768 | 824,326 | 644,150 | 797,425 | 125,470 | 1,614,185 | 4,102,326 |
| Maine..... | 79,115 | 250,065 | 137,243 | 1,113,677 | 71,159 | 208,136 | 1,859,337 |
| Maryland..... | 93,371 | 418,765 | 4,131,981 | 5,455,295 | 72,000 | 953,195 | 11,124,609 |
| Massachusetts..... | 116,788 | 701,935 | 277,778 | 3,818,192 | 78,000 | 1,258,197 | 6,250,892 |
| Michigan..... | 133,559 | 1,328,676 | 2,222,872 | 754,543 | 171,799 | 170,706 | 4,822,156 |
| Minnesota..... | 99,750 | 846,198 | 140,107 | 308,919 | 135,750 | 1,337,883 | 2,868,609 |
| Mississippi..... | 91,735 | 940,760 | 1,002,635 | 972,530 | 150,856 | 559,035 | 3,717,552 |
| Missouri..... | 109,448 | 1,067,243 | 1,317,607 | 1,660,042 | 134,010 | 1,320,517 | 5,608,868 |
| Montana..... | 75,895 | 205,311 | 394,674 | 730,388 | 63,486 | 283,245 | 1,753,030 |
| Nebraska..... | 83,222 | 435,338 | 910,763 | 1,047,151 | 89,626 | 586,528 | 3,152,629 |
| Nevada..... | 71,596 | 179,430 | 217,728 | 809,675 | 56,272 | 90,739 | 1,425,441 |
| New Hampshire..... | 75,319 | 160,672 | 75,674 | 607,480 | 55,971 | 99,403 | 1,074,519 |
| New Jersey..... | 118,233 | 791,070 | 398,306 | 2,271,962 | 85,783 | 642,756 | 4,308,111 |
| New Mexico..... | 76,794 | 225,892 | 3,438,300 | 2,991,620 | 63,931 | 216,517 | 7,013,056 |
| New York..... | 217,933 | 2,540,619 | 474,510 | 3,613,401 | 191,482 | 3,798,527 | 10,836,474 |
| North Carolina..... | 110,518 | 1,462,830 | 773,163 | 1,448,569 | 229,997 | 1,066,830 | 5,091,908 |
| North Dakota..... | 76,180 | 275,855 | 279,182 | 194,291 | 72,079 | 338,638 | 1,236,228 |
| Ohio..... | 149,269 | 1,712,274 | 680,961 | 3,157,885 | 207,041 | 2,686,900 | 8,594,331 |
| Oklahoma..... | 92,278 | 655,943 | 1,757,305 | 4,796,164 | 100,063 | 1,060,065 | 8,461,819 |
| Oregon..... | 85,175 | 401,726 | 111,405 | 839,414 | 89,514 | 287,266 | 1,814,502 |
| Pennsylvania..... | 174,719 | 2,022,785 | 94,010 | 1,773,018 | 85,472 | 1,493,298 | 5,643,303 |
| Rhode Island..... | 77,899 | 156,680 | 197,307 | 1,128,300 | 45,902 | 261,719 | 1,867,807 |
| South Carolina..... | 91,117 | 734,740 | 1,467,224 | 2,146,570 | 69,270 | 1,302,566 | 5,811,489 |
| South Dakota..... | 76,511 | 282,819 | 526,255 | 1,484,273 | 70,753 | 345,343 | 2,785,955 |
| Tennessee..... | 102,835 | 1,091,496 | 175,393 | 1,386,062 | 169,714 | 782,833 | 3,708,335 |
| Texas..... | 146,920 | 1,852,754 | 4,683,739 | 8,471,669 | 205,606 | 1,578,337 | 16,939,026 |
| Utah..... | 76,871 | 183,563 | 243,743 | 1,211,174 | 70,185 | 328,969 | 2,114,506 |
| Vermont..... | 73,768 | 183,748 | ----- | 69,795 | 56,937 | 37,094 | 421,342 |
| Virginia..... | 103,104 | 976,716 | 3,854,602 | 9,371,603 | 164,032 | 356,368 | 14,826,427 |
| Washington..... | 93,730 | 580,244 | 1,739,257 | 5,801,015 | 101,770 | 444,887 | 8,760,905 |
| West Virginia..... | 90,005 | 615,304 | ----- | 107,211 | 132,470 | 449,909 | 1,394,900 |
| Wisconsin..... | 104,260 | 992,587 | 6,156 | 313,363 | 132,450 | 135,363 | 1,684,181 |
| Wyoming..... | 72,898 | 166,008 | 207,234 | 353,539 | ----- | 8,613 | 808,294 |
| Puerto Rico..... | 50,000 | 722,380 | (-3,193) | ----- | 110,000 | 187,977 | 1,067,164 |
| Virgin Islands..... | ----- | 39,570 | ----- | ----- | 10,782 | 7,222 | 57,574 |
| Canal Zone..... | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Guam..... | ----- | 41,500 | 267,674 | 495,760 | 13,980 | ----- | 818,914 |

¹ On a checks-issued basis. Does not necessarily agree with allotments or expenditures for a given fiscal year.

² Inasmuch as the cents have been dropped from this table, a totaling of any column may or may not equal the total given for that column.

³ Does not include payments made to Army, \$4,287,634; Navy, \$1,206,205; Air Force, \$1,264,895.

⁴ Does not include payments made to States for loans and repayable advances (\$30,585,941) or amounts paid to individuals, institutions, etc. under the National Defense Education Act (\$3,194,833).

Food and Drug Administration

THE FOOD, drug, and cosmetic industries and the Federal regulating agency, the Food and Drug Administration, are in the midst of changing times. It will require the unswerving efforts of all concerned to insure that the products controlled by the Food, Drug, and Cosmetic Act continue to be the best obtainable in this or other lands.

New substances are being added to foods to permit commercial production and distribution of products that contribute materially to higher standards of living. Ninety percent of the active drugs now used in prescriptions were not known two decades ago when the safety of new drugs was first protected by law. They have saved many lives and permitted treatment of diseases that formerly were debilitating. Many are so potent that new measures of controls must be exercised in their manufacture and directions for use. Regulation of cosmetics has brought an end to the disfiguring preparations of the past, but too little is known about some of the new ingredients now being used. Farmers are using feeds medicated with potent drugs, and pesticides which require meticulous care to preclude unsafe residues in meat, milk, and eggs and on harvested crops.

All such developments add to the complexity of protecting the consumer and guiding manufacturers to assure the safety of their products. It requires research by industry, academic, and Government scientists and constant vigilance to see to it that their recommendations are followed.

The Food and Drug Administration had a full opportunity to learn the views of the groups affected by its activities during three day-long meetings held by the Secretary of Health, Education, and Welfare with representatives of national industry, professional, and consumer organizations in December 1958.

All of these groups vigorously advocated the continued strengthening of the Food and Drug Administration to meet its responsibilities in line with the Citizens Advisory Committee recommendations of 1955. Representatives said they want a bigger, better paid research staff, more educational work, a new central headquarters building to be constructed promptly, food additives work to receive prompt attention, food standards work to be resumed on a full-time scale, and public warnings against nutritional quackery to be continued.

Other recommendations, not unanimously shared, called for various amendments to the law—to require proof of the safety of new cosmetic ingredients, to change the requirements for coal-tar certification from the present “harmless” criterion to safe tolerances for intended uses, and to require proof of efficacy for new-drug clearance. Consumer groups spoke against any weakening of food standards provisions, while some industry spokesmen called for more flexibility. Many called for more enforcement of net-weight provisions, for adoption of the Uniform State Food, Drug, and Cosmetic Act by States that have not done so, and for better support of State food and drug law enforcement.

These groups also presented their views before appropriation committees of Congress on continued strengthening of FDA. The appropriation bill enacted for the 1960 fiscal year will bring the rate of growth of FDA up to the minimum rate recommended by the Citizens Advisory Committee, which called for a 3- to 4-fold expansion within 5 to 10 years.

Seventy positions to staff the new Detroit District were added for 1959 to the slightly more than 1,200 on the total enforcement rolls at the end of the 1958 fiscal year. Sixty-one positions to start the food additives work were added by a supplemental appropriation in 1959. The 1960 appropriation provided for 348 new positions, including 60 to augment the initial food additives staff.

A new district will be staffed at Dallas. At Atlanta where a new building is under construction similar to that at Detroit, the staff will be brought to full strength for the optimum use of expanded facilities. The increased appropriation will also provide for modern scientific equipment to bring 10 districts up to the Detroit equipment prototype.

The Detroit District, dedicated on May 14, 1959, is the first new district in 24 years, and occupies the only building ever built as an FDA laboratory facility capable of meeting the needs of changing times. The 18th district at Dallas will be its counterpart in design and facilities.

Research work will be advanced by adding 60 new people for the following specific projects:

- To detect and identify pesticide residues

- To determine effect of radioactivity on foods and drugs

- To investigate presence of carcinogens in container waxes
- To study presence of toxic properties in fatty acids
- To investigate bacterial contamination of frozen foods
- To develop methods of analysis for adrenal and cortex hormones
- To provide additional effort in food standards and cosmetics

In addition, 15 new positions were established for food additives research.

Medical activities will be strengthened by 16 new staff members to work on the evaluation of new-drug applications, to study adverse effects of new drugs after they are in use, and to make clinical studies of quack drugs and devices. The increase will also provide 34 more jobs to strengthen compliance, regulatory and information activities, and administrative management.

While these developments provide a look ahead, rather than an accounting of stewardship for the year past, they indicate the areas in which consumer protection has been inadequate and in which better facilities were needed.

Steps forward in 1959 have included improved educational programs designed to combat medical and nutritional quackery, better industry sanitation programs, studies into the safety of food and drugs in this era of profound changes in composition and utilization, an effort to prevent debasement of supplies by those seeking illegal gains, and more industry and consumer educational activities.

Management consultants were employed to seek an outside view as to whether facilities and procedures employed were effective, particularly in field operations. The management consultants recommended that the present system of district offices be continued as well as their administrative functions, which should be expanded to some extent. They also recommended more resident inspection posts. They suggested areas in which work plans and program management can be made more effective.

The study clearly recognizes the magnitude of the enforcement task in these words:

The administration of these laws involves effecting compliance with their provisions by a large number of establishments geographically dispersed throughout the United States. Over 100,000 industrial and related establishments, 56,000 drug and proprietary stores, 319,000 eating places, 373,000 retail stores, 2 million growers of fruits and vegetables, 6,000 wholesale fruit and produce dealers, 16,000 packing sheds, and approximately 330,000 commercial import lots, annually, are subject to one or more aspects of FDA's regulatory activities.

A second characteristic of the job is its rapidly changing complexity. Advances in food technology—from growing to packaging and distribution, an increased number of new drug formulations and their applications, and the ever-widening application of nuclear energy to food products—pose a succession of new enforcement problems.

Together these two characteristics have created a substantial gap between the job to be done and available resources—manpower, equipment, and facilities.

Training of new employees under the expansion program is a growing responsibility. Seventy-five percent of the inspection and clerical staff and 60 percent of the field chemists and Washington technical staffs have been with FDA less than 3 years. If the expansion provisions of 1960 continue, approximately one-third of the total personnel will be new in each of the next 2 years. A special training unit has been established to meet this situation.

Stepped-up education and information activities are reflected throughout the report. They have been designed to bring better compliance with the law by industry and better use of its protection by consumers. Industry and professional groups, consumer organizations, State food and drug agencies, and other Government departments with related responsibilities have contributed substantially to the growth of these activities.

Food, Drug, and Cosmetic Act

ON THE FOOD FRONT

Heavy rainstorms in many parts of the country caused flash floods which required supervised destructions of affected foods and drugs by local and State inspectors, with FDA help when needed. While individual losses from such storms were heavy in some cases, there were no disasters of the magnitude caused by floods and hurricanes in some previous years.

Potential Health Hazards

Deleterious ingredients.—Since 1957, about 4,000 samples of food-stuffs collected throughout the United States have been checked for radioactivity. The results disclose an increase in radioactivity of fresh vegetables above the “background” radioactivity normally present; evidence of continuing contamination in certain types of fish; an apparent increase in radioactivity in wheat collected in 1958 compared with that present in samples grown during the period 1945 to 1957; a continuing significant contamination of tea; and a wide range of radioactivity from fallout in samples of alfalfa hay and various ensilages harvested in 1958 and early 1959.

Only a limited number of samples have been analyzed to determine whether the radioactive material includes strontium 90. Alfalfa hay samples were found to contain up to 800 micromicrocuries¹ per kilogram of hay. Commenting upon this finding, Secretary Fleming emphasized that this radioactivity, by itself, is not a current threat to the public health. Strontium 90 has also been found in

¹ A curie is the amount of radiation given off by 1 gram of radium. A micromicrocurie is a millionth of a millionth of a curie.

some samples of tea, but not in the samples of tuna which have been examined for it.

Samples of beans, peas, and fish from Peru have been analyzed for radioactivity during 1959. The results will serve as a guide for greater selectivity in import sampling.

Over 900 samples of bulk-tank milk were collected in 16 major cities of the country over a 4-month period to determine whether antibiotics, particularly penicillin, were used improperly in medication of cows, with residues in milk resulting. The penicillin residues were substantially reduced as a result of educational work following previous surveys and regulations providing for better label warnings and lower dosages. There are still present, however, small percentages of penicillin in market milk in some areas. FDA, working in close cooperation with State and local health officials, will continue efforts to reduce the antibiotic residues.

Increased consumer protection from excessive pesticide residues on fruits and vegetables was provided by the planned collection and analysis of over 2,000 samples of crops from all commercially important growing areas and constant surveillance of the pesticide spray practices of growers.

These field investigations led to the finding of excessive DDT residues on a plant's entire pack of spinach being frozen for nationwide distribution. The crop had been sprayed with more than the recommended treatment 8 to 10 days closer to harvest than is directed to assure that unsafe amounts will not remain in the foods. After two large shipments were seized, the firm recalled the remainder of the pack throughout the country for destruction and inaugurated new controls.

The owner of a carload of lettuce, seized because of parathion and fluorine in excess of the tolerance, was an officer in two State associations of growers and shippers. Through these organizations he shared his object lesson with growers in a large area by warning them of the necessity of adhering to recommended schedules.

In another part of the country, inspectors encountered a crop of spinach that had gone to a packing plant the day after it was sprayed with parathion. When the canner was advised he destroyed 4,000 pounds of fresh spinach plus a small amount that had been processed. Additional truckloads of this spinach had been shipped to another food packer who had frozen it. At FDA's request, the firm held its stocks intact and after its own analysis disclosed excess parathion, voluntarily destroyed approximately 25,000 pounds in 10-ounce packages.

One district that had experienced serious spray residue problems the previous year sent out teams of inspectors and chemists, using trailer

laboratory facilities, to devote more than 5 man-years to the program. In addition to inspections and analyses, discussions were held with grower association officers, commercial pesticide applicators, managements of chemical companies, and others concerned. During the entire year, only one high-residue lot was encountered in the territory covered by this district.

Spray residue problems are not, however, confined to growers who disregard the amounts and timing of applications. A residue of DDE, a breakdown product of DDT, was found in carrots that had never been treated with DDT. Investigation disclosed that in previous years the field in which they were grown had been planted in cotton which had been heavily dusted with DDT.

FDA's concern that no pesticide residues endanger the milk supply led to the collection and analysis of over 300 samples of hay, silage, apple pomace, and field corn. Since most animal feeds of this type do not move in interstate commerce, samples which contained residues in excess of FDA tolerances were referred to State authorities to prevent use of such feed for dairy cattle. One State, for example, seized 248 tons of dried apple pomace with excessive DDT and warned all dairy operators and apple pomace producers of its potential danger to the milk supply. Federal seizure was made of hay with DDT, for which no tolerance had been established. This owner then warned the trade not to use pesticides that would make crops illegal. No excessive residues were found on feed crops sprayed with insecticides to control the grasshopper scourge in Colorado in the summer of 1958.

Twelve carloads of grain, aggregating 465 tons, were seized because of contamination with a mercurial compound. This is a known poison with legitimate use only as a seed treatment. Prosecutions were filed against three grain dealers distributing "throw-out" corn that had been so treated for seed use. Such corn, used by a manufacturer of poultry feeds, injured poultry and destroyed their egg-laying capability.

A leaflet "Protecting Crops and Consumers" addressed to farmers and agricultural leaders, and shippers of fresh fruits and vegetables was issued in December. It presents information intended to promote compliance with the pesticide chemicals law, with rules to be followed to make sure that pesticide residues do not exceed FDA tolerances.

A 16-State alarm was set off when the death of a child and illness of the rest of the family was traced to sodium nitrite in flounder fillets. Investigation disclosed that shipments of the contaminated lot had been confined to the area surrounding Haddon Heights, N.J., and that a number of other illnesses occurred. Outstanding portions were rounded up and the packing firm and its president and foreman were indicted by a Federal grand jury on charges that they had treated the fish with an injurious preservative with intent to mislead and defraud.

A sampling program began immediately after this tragedy to determine whether it was an isolated incident or whether other fish on the market might also have been treated with sodium nitrite. The survey showed that nitrites are not generally present in fresh or frozen fish fillets produced in this country. Eight seizures were made, mainly of imported frozen fillets and smoked and brined fish.

Other seizures of contaminated foods included powdered eggs containing salmonella organisms, cheese with staphylococci, imitation vanilla with coumarin (a flavoring agent found a few years ago to produce injury to test animals), caviar containing a borax derivative as a preservative, and feeds containing mineral oil and fluorine.

Food poisoning.—Forty-two outbreaks of suspected food poisoning involving approximately 1,200 persons were investigated by FDA during the year. *Staphylococcus* continued to be the most common causative agent and the majority of outbreaks developed as a result of insanitary handling or lack of adequate refrigeration.

Colby cheese prepared from unpasteurized milk was responsible for illness of more than 60 persons. Investigation revealed the cheese to be contaminated with large numbers of *Staphylococcus* and over 65,000 pounds were removed from the market by seizure.

In 14 outbreaks the specific micro-organisms or suspect food could not be determined.

To Keep Food Clean

Sanitation programs have covered the entire food industry but have been concentrated largely on the procurement of suitable raw materials, since the processors as a whole are aware of their responsibilities to maintain adequate sanitation controls in their factories. Since producers of the raw supplies often are not interstate shippers, FDA has endeavored to persuade them to protect their products from filth and spoilage through educational programs conducted with the assistance of agricultural and industry groups, and by enforcement actions against interstate firms that will accept unfit raw materials.

Inspections were made of 3,218 food storage warehouses, including wholesale grocers, chainstore warehouses, cold-storage warehouses, and other establishments where food is stored for subsequent distribution. This represented a slight increase of time devoted to this project over that of 1958; it had doubled the previous year. Contaminated or insanitary lots were removed from human food channels by voluntary destruction or Federal seizure. A large number of storage facilities were repaired and renovated to keep out pests and provide more sanitary storage.

Despite this progress some establishments were found on repeated inspections failing to protect stored products from contamination.

Prosecution actions were filed against 18 firms during the year for holding foods under insanitary conditions. Among them was a wholesale flour distributor who was accepting return shipments from retail stores when the flour became contaminated with insects and rodent filth. This flour was sifted and packaged in new bags and distributed at a slightly lower price to lower grade stores. Seizures were made and the firm and its manager fined.

Table 1.—*Actions on foods during the fiscal year 1959*

| Projects | Seizures | Criminal prosecutions instituted | Injunction petitions |
|---|----------|----------------------------------|----------------------|
| Total..... | 828 | 111 | 13 |
| Beverages and beverage materials..... | 13 | 2 | ----- |
| Bakery, ready to eat cereal, and macaroni products..... | 13 | 12 | ----- |
| Cereals and grain products: | | | |
| Human use..... | 130 | 19 | 5 |
| Animal use..... | 4 | 7 | ----- |
| Chocolates, sugars, and related products..... | 13 | 12 | 1 |
| Dairy products: | | | |
| Butter and churning cream..... | 33 | 6 | ----- |
| Cheese and other dairy products..... | 6 | 2 | ----- |
| Eggs and egg products..... | 34 | 9 | 2 |
| Flavors, spices, and condiments..... | 25 | 1 | ----- |
| Fruits and fruit products..... | 58 | 3 | 1 |
| Meat products and poultry..... | 11 | ----- | ----- |
| Nuts and nut products..... | 103 | 2 | ----- |
| Oils, fats, and oleomargarine..... | 22 | ----- | ----- |
| Seafood..... | 73 | 12 | 1 |
| Vegetables and vegetable products..... | 106 | 5 | 1 |
| Miscellaneous foods (mixed lots)..... | 2 | 1 | ----- |
| Warehoused foods..... | 148 | 18 | 2 |
| Food for special dietary uses ¹ | 27 | ----- | ----- |
| Food adjuncts..... | 2 | ----- | ----- |

¹ Includes vitamin products intended as food supplements.

Sampling of rail and truckloads of bulk wheat in the fiscal year 1959 resulted in 76 lots seized by Federal court action. Of these, 4 were seized for excessive damage by grain storage insects and 72 for contamination with rodent filth. Random samples taken during the course of the year indicated a distinct improvement in the sanitary quality of wheat since inauguration of the clean wheat program.

Concurrent with the sampling of wheat moving in interstate commerce, inspections are made of country elevators and terminal grain storage facilities in an effort to improve the sanitary practice of those firms. Through the cooperation of the Department of Agriculture, the Fish and Wildlife Service of the Department of the Interior, State colleges of agriculture, and county agents, the effort to improve grain storage is extended to the farm.

These educational efforts, together with injunctions and prosecutions, have resulted in destruction or abandonment of many old wooden elevators and repairs of others at large expenditures to put them in structural condition to protect grain from insects, rodents, and birds.

The magnitude of the wheat program is indicated by the fact that one injunction alone called for supervising the salvage of 150 carloads of wheat. Cooperating State food officials continued and materially expanded their own active programs. One State seized or embargoed 10 million pounds of wheat and other food grains.

In contrast to wheat, corn has many nonhuman food uses. This has presented difficulties in developing a program in the production of foods. An educational program has been initiated in the past year similar to the initial program in the "clean wheat" campaign. The Department of Agriculture and the Fish and Wildlife Service have joined FDA in issuing a leaflet "Clean Corn Will Pay Dividends," which was prepared in cooperation with the Corn Industries Research Foundation, Inc. Food industry and grain trade groups are assisting in distributing the leaflet so as to reach growers and handlers of food corn. Prevention of contamination not only means cleaner foods—it also means savings of millions of dollars through prevention of waste and destruction by insects, rodents, and birds.

The procurement of fresh, clean cream and keeping it so has for many years been the most serious problem of the butter industry, insofar as compliance with the Food, Drug, and Cosmetic Act is concerned. The major recent trend has been the churning of sweet cream only. An educational pamphlet issued by FDA in 1959 is entitled "Cream and Butter" (FDA Leaflet No. 9). It was prepared with the assistance of the American Butter Institute, as an aid to farm cream producers, cream station operators, and butter manufacturers. The industry, the Department of Agriculture, and State dairy officials have been assisting in its distribution to those responsible for the sanitary handling of cream at all levels. It also discusses keeping the milk supply from being contaminated by drugs administered to cows.

The 1958 report discussed the problem of the diversion of incubator reject eggs into human food channels. Enforcement pressure and effective investigation of this racket came to a climax at a converted turkey-processing establishment near Newburgh, N.Y., in March. This "detective story" began with the closing of an illegal operation at Nashville, Tenn. This plant was moved and reestablished in Florida. In turn the Florida plant was discovered by FDA inspectors and, after a large seizure, it was surreptitiously dismantled, as was a breaking plant in Jersey City.

Equipment from both operations next turned up at the plant near Newburgh. Here a surprise inspection stampeded ringleaders who had operated in the other locations and they dispersed without putting into effect the warning system that had covered up their previous operations. This consisted of a buzzer alarm that warned employees to hide evidence of their illicit operations before inspectors were ad-

mitted. The employees were found continuing their regular operations—throwing the hatchery rejects into centrifuges and extracting everything liquid enough to come through. Then they froze the decomposed eggs in 30-pound cans. Federal seizure was made of 40,000 pounds, and State authorities supervised the destruction of the shell reject eggs not yet processed. A number of criminal cases have been filed and one operator has been charged with violation of a probation ordered in connection with a fine imposed for his Jersey City operations. See also "New Court Interpretations."

Filth or decomposition was charged in 79 percent of the food seizures; 7,430 tons were seized in 656 actions. Of these, 336 seizures involved merchandise that became unfit after interstate shipment. An additional 7,964 tons of unfit food were voluntarily destroyed or converted to nonfood uses by their owners as the result of FDA inspections.

These owners also reported 238 plant improvements costing approximately \$4 million in the aggregate. Many have stated that the improved plant facilities and sanitary practices have more than paid for themselves through more efficient operations as well as in protecting foods from contamination and encouraging better employee concepts of sanitation.

Sixty-seven criminal cases charging shipment of filthy or decomposed foods were instituted. Sixty-eight prosecutions on like charges were terminated in the courts. Penalties ranged from probation to three jail sentences, of which one was suspended. The highest fine assessed was \$4,500 against a warehouse and its president.

Twelve injunctions were requested to prevent the distribution of unfit foods. Five were against firms handling bulk grains, two involved incubator reject eggs, and one each confectionery, crabmeat, and canned tomatoes. Two were against warehouses. All were under injunction or temporary restraining order at the end of the year, except for one warehouse that corrected the insanitary conditions complained of; on its petition the court dismissed the case.

Pocketbook Protection

With FDA's policy of giving top priority to problems of health and sanitation, and with a shortage of funds for enforcement activities in recent years, only limited attention was given to frauds and cheats. Increased manpower now permits more attention to protecting the consumer's pocketbook.

A nationwide check was made of the net weight of 36 different packaged foods—from soup to nuts—in cans, boxes, or bags. More than 111,000 individual retail packages from 100 wholesale lots of each food were weighed. Fifteen percent were short in weight by varying amounts. Nine percent of the lots examined were short by less than

1 percent, 3 percent were 1 to 1.99 percent short, 1.5 percent were 2 to 2.99 percent short, 1 percent were 3 to 4.99 percent short, and 0.5 percent were short by 5 percent or more.

A seizure program was initiated on significant shortages and attention to net contents practices of food packers will be a part of each food plant inspection in the 1960 fiscal year.

An intensified oyster inspection program in the Chesapeake Bay area for 11 days during the peak pre-Christmas packing season resulted in the filing of 11 criminal cases against packers observed to be soaking oysters longer than permitted by the FDA standard. Since excessive soaking is a practice that can be, and usually is, abandoned when an inspector enters the plant, lengthy or repeated inspections of 73 plants during this peak period brought many consumers better oysters for the holidays.

A 2-year Government-Industry Cooperative Oyster Research Project was launched in December. Its purpose is to acquire facts upon which to evaluate the adequacy of the present standard and to suggest changes to strengthen consumer protection against excess water in oysters. The Fish and Wildlife Service of the Department of the Interior, the Oyster Institute of North America, and FDA are each contributing a scientist to the project.

More than a hundred seizures were made to protect the food buyers' pocketbooks. Included were watered orange juice, spent tea leaves and paprika, two brands of blueberry pancake mix with starchy purple pellets substituted for blueberries, coffee beans containing husks, black pepper containing buckwheat, and sirups and oils debased with cheaper ingredients. Among the items seized for failure to meet official standards were butter, cheese, oysters, shrimp, french dressing, salad dressing, and canned peaches, beans, mushrooms, and tomatoes.

Twelve of the oil seizures involved teaseed oil imported from Italy as olive oil. Fourteen other lots, totaling 89,000 gallons, were denied entry after FDA became aware of the situation. The two oils have practically identical chemical constants and special tests must be used to detect the adulteration. The teaseed oil was produced in China and reached Italy indirectly through the Iron Curtain for illegal manipulation and labeling. The Italian Government is reported to have taken action against the Italian firms involved.

Products of Special Dietary Significance

To protect those for whom nutritional supplementation is required and those whose diets must be restricted in the management of certain diseases, the law requires special dietary items to conform to the labeled composition and to bear informative labeling to guide in their use.

Twenty-eight seizures were made of products failing to meet the vitamin potency claimed on the labels. Other violations were failure to set forth the minimum daily requirements of the vitamins declared on the labeling, and failure to list the sodium content of crackers and canned tomatoes offered as special dietetic items for persons on low-sodium diets.

Foods and nutritional supplements seized for false and misleading claims are discussed with misbranded drugs, since action was taken for violation of the drug provisions of the act. Many of them were offered for conditions that should be diagnosed and treated only by competent physicians.

DRUGS AND DEVICES

Recalls.—Twenty-seven defective or misbranded drugs were recalled by manufacturers during the year. Six antibiotics and seven other drugs were below labeled potency. One had decomposed in possession of dealers. Some bottles of an ear preparation were labeled for treatment of the eyes. Another label mixup involved the labeling of saline injection as dextrose. Four other injection drugs contained pyrogens or were nonsterile. Four contact lens wetting solutions were recalled from sale because they also were nonsterile.

One product was recalled because it had been distributed without a new-drug application, and two products being distributed under effective applications were recalled because of adverse reactions in some patients. The new drug applications were suspended in both cases, with the concurrence of the manufacturers.

An electrical device for treating mastitis in cows was recalled after seizures alleging that it was potentially dangerous to the treated animal and the person applying it.

Illegal Sales of Prescription Drugs

Of 95 criminal actions charging drug violations, 72 cases involving 140 defendants were filed on charges of illegal sales of prescription drugs. Sixty-nine cases against 124 defendants were terminated in Federal courts in 1959 with 1 verdict of not guilty for 3 individual defendants but guilty for the corporation. Jail sentences ranging from 6 months to 2 years were imposed on 8 individuals, in addition to 10 others that were suspended. Other penalties ranged from suspended nominal fines to \$3,000 required to be paid.

State troopers have attributed many accidents to the use of amphetamine by drivers. The sale of such drugs is principally through truck stops, cafes, and drive-ins. It is definitely a bootleg type of business and is being pushed further underground in the hands of persons with criminal records for violation of other laws. Every effort is being made to trace the amphetamine tablets back to the point where they were diverted from legitimate drug channels.

Many States have been active in curbing illegal sales of this type and State boards of pharmacy have taken action against pharmacists convicted of violating State and Federal restrictions on the sale of prescription drugs.

Adulterated and Misbranded Drugs and Devices

Litigation against the Hoxsey Cancer Clinic of Portage, Pa., was reviewed in some detail in the 1958 report. A contempt of court action, based on violation of the injunction, was filed in October 1958. To avoid punishment for this the "clinic" directors signed a supplemental consent decree of injunction which provided that they would close their establishment by November 1, 1958.

Two cases in 1959 were based on counterfeits of well-known brands of a tranquilizer. FDA cannot take the responsibility of protecting drug manufacturers' patent rights. It must, however, protect the public against drugs so formed that they may be palmed off for legitimate products which they do not meet in potency. The court assessed a substantial penalty, and two other individuals were under indictment at the close of the year. A manufacturer's private detective worked with FDA inspectors to get the evidence.

Two druggists were fined, given suspended jail sentences, and placed on probation for 3 years for substituting inexpensive cold tablets for an antibiotic prescribed for an upper respiratory infection. When the patient got worse instead of better, the physician became suspicious and referred the matter to FDA.

Cherry juice for arthritis, cabbage juice extract for ulcers, 62-cents-a-piece pollen candy for longevity, and royal jelly for sexual vitality are but a few examples of the 83 drug seizures charging false and misleading therapeutic claims. Conditions listed in the labeling ran the gamut from "that tired feeling" to diabetes, tuberculosis, and cancer.

Promotion of royal jelly as a rejuvenator has continued despite seizures for the past 3 years. While medical research is being conducted into the relationship, if any, between certain heart ailments and the kind of fats consumed, food fad promoters are offering worthless products to protect against heart disease. Sufferers from arthritis and other conditions related to aging are the target of many quackery schemes.

The American Medical Association has estimated that overweight Americans are spending \$100 million a year on spurious diet aids and useless mechanical devices. The 1958 annual report mentioned the joint efforts of the AMA, The National Better Business Bureau, and FDA in an educational campaign against nutritional quackery. These have been continued throughout the year, with the strong support of Secretary Flemming, whose warnings were published in newspapers

throughout the country. These same groups have extended this educational work to warnings against the fraudulent products and schemes being foisted upon the public as weight reducers.

Purported appetite depressants, food supplements, and other products are often offered with a plan including a low-calorie diet which alone produces the results, if any. Among the purported reducing agents seized were cigarettes and chewing gum.

Fifty-seven devices were seized for false and misleading claims. Many of them were electric vibrators offered for weight reduction. They included hand units, cushions, chairs, tables, mattresses, belts, and rollers. Some were also promoted for the cure of serious diseases. Vibration from these devices may provide temporary relief for minor aches and pains due to overexertion or fatigue, but they will not reduce weight or cure disease.

Other misbranded devices seized included chemical and radio diagnostic devices, do-it-yourself hypnotism records, therapeutic lamps and blankets, foot exercisers, vacuum cleaners, and time-honored copper charm bracelets, each falsely claiming to cure or prevent a long list of serious conditions for which they were worthless.

Apart from vitamins, covered under products of special dietary significance, 36 drugs were seized because they failed to meet official or declared composition. Also seized were 12 lots of condom prophylactics and clinical thermometers that were defective.

Four injunctions involving drugs and devices were requested of the courts during the year. One concerned adulterated injection drugs sold without an effective new-drug application. The other three were requested because of false and misleading therapeutic claims. They involved a cream and lotion, a so-called appetite depressant, and a pad containing pulverized rock falsely purported to contain uranium with healing properties.

Medicated feeds.—The medication of a large proportion of prepared feeds to stimulate growth or treat disease in food animals has added materially to the regulatory obligations of FDA and State feed control officials.

Many of the new drugs used in medicated feeds produce profound physiological and pharmacological effects upon animals even when present in small amounts. Not only must the safety of foods derived from animals fed medicated feeds be established, but the incorporation of potent drugs in feeds at low levels requires exacting manufacturing and laboratory controls. Four shipments of feeds containing antibiotics were seized because they did not comply with certification requirements, or contained less of the drug than declared, or because another drug had been substituted for the antibiotic claimed.

New Drugs

During the fiscal year, 448 new-drug applications including 79 for veterinary use were received; 273 including 43 veterinary applications became effective, permitting the products to be marketed. In addition, 1,067 supplemental applications including 377 for veterinary use were made effective. Two effective applications were suspended. No order was issued refusing to permit an application to become effective. One drug was exempted by regulation from prescription dispensing.

Included in the list of drugs allowed to be distributed under effective new-drug application were: Two oral antidiabetic agents; one antibiotic and one sulfonamide for the treatment of infections; eight drugs useful in psychotherapy; one narcotic and one mild analgesic agent for relief from pain; one antileukemic drug; a reserpinelike alkaloid for the treatment of hypertension; a drug which increases the excretion of uric acid in gout; a new steroid for the treatment of rheumatoid arthritis and other collagen diseases and a steroid with anti-inflammatory action for topical use only; a progesterone derivative for menstrual disturbances; two proteolytic enzymes for the cleansing of wounds and three antiseptics; a radioactive isotope for diagnostic use; three drugs to lower intraocular pressure in glaucoma; two vasodilators useful in vascular diseases; a skeletal muscle relaxant; one appetite depressant and two drugs for relief from vomiting; two antihistamines; a local anesthetic for dental use; two intravenous preparations, urea to decrease intracranial pressure and an amino acid to relieve a certain type of hepatic coma; and three diuretics for the treatment of congestive heart failure.

It is a part of the safety requirements for new-drug clearance that the applicant show that adequate manufacturing controls will be maintained. A number of seizures made during the year were of products manufactured by firms which did not have this clearance, although there were effective applications for the drugs themselves when manufactured by firms that had established adequate processing controls.

Among the drugs covered by the applications processed for veterinary use were: Two antibiotics for growth promoting effects; 2 tranquilizers for use in feed as growth promotants; 1 long-acting sulfonamide for treating systemic infections in farm animals; 10 corticosteroids with the trend to the more potent, somewhat specific agents such as Dexamethasone; 5 injectable iron preparations for treatment of baby pig anemia; and 3 anesthetics, 2 parasiticides, 2 diuretics, and 2 preparations for the treatment of dermatoses.

As a result of the food additives amendment, a number of veterinary new-drug applications and supplements to existing applications were refused on the basis that adequate information was not available to show that the product would not cause cancer.

COSMETICS AND COLORS

Three cosmetics were seized under the drug provisions of the act because they were falsely labeled, two for rejuvenation of the skin and one for curing dandruff. An eye lotion was voluntarily recalled by a cosmetic firm when its consulting laboratory reported bacteria and mold in several batches.

CERTIFICATION SERVICES

Coal-tar colors.—All coal-tar colors used in foods, drugs, and cosmetics (except hair dyes) must be from batches certified as harmless by FDA. In 1959, 5,262 batches representing 7,348,717 pounds were certified, and 22 batches, representing 23,774 pounds, rejected.

Insulin.—All batches of insulin must be tested and certified before distribution. Examination of 350 samples resulted in the certification of 288 batches of 7 insulin drugs and 60 batches of materials for use in making insulin-containing drugs.

Antibiotics.—The predistribution testing and certification of certain antibiotics is also provided by amendments to the act. Examinations were made of 13,716 batches of penicillin, chlortetracycline, bacitracin, chloramphenicol, dihydrostreptomycin, streptomycin, tetracycline, neomycin, nystatin, erythromycin, novobiocin, polymyxin, oleandomycin, and oxytetracycline during the fiscal year. The last seven antibiotics are not included in the certification amendments, but are tested when they are mixed with those requiring certification. Twenty-seven batches were rejected for failing to meet the following standards: Potency (15), sterility (5), moisture (5), and pyrogens (2). In addition, manufacturers withdrew their requests for certification of 15 batches because they were substandard.

Enforcement of Other Acts

A total of 109,809,995 pounds of tea was examined under the Tea Importation Act. Rejections for failure to measure up to the standards set by the U.S. Board of Tea Experts totaled 99,367 pounds, or 0.09 percent. Three rejections were appealed to the U.S. Board of Tea Appeals, which upheld the decision of the FDA examiner in one case and sustained the appeal in one. The third was voluntarily withdrawn by the importer.

Three shipments of a bowl cleaner were seized for failure to bear the word "poison" as required by the Caustic Poison Act. A fourth seizure involved a grill and fryer cleaner containing more than 10 percent sodium hydroxide which was not labeled "poison" and did not give adequate directions for treatment in case of accidental injury.

No permits were issued for importations of milk from foreign countries, nor were any actions instituted under the Filled Milk Act.

New Court Interpretations

Four petitions for certiorari were filed with the Supreme Court during the fiscal year.

The Court accepted the Government's petition to review a Fifth Circuit Court of Appeals decision against the Secretary's order delisting for color certification FDC Orange No. 1, Orange No. 2, and Red No. 32. In reversing the Fifth Circuit Court, the Supreme Court agreed with the Department's construction of "harmless" and held that there is no authority under section 406(a) of the act to establish a tolerance for a poisonous coal-tar color.

The Supreme Court refused to review a Seventh Circuit Court of Appeals decision that a corporation cannot plead the fifth amendment as a defense for not answering interrogatories. The appeal included an attempt to establish that an agreement made with the Post Office would be "res administrata" and binding upon all other Government agencies.

In reversing a decision of the Court of Appeals for the Tenth Circuit upholding conviction of an individual for selling prescription drugs illegally, the Supreme Court remanded the case for a new trial on the grounds that the jury may have been prejudiced by the newspaper publicity during the trial in the district court.

The 1958 annual report outlined litigation in a mineral water seizure that had been pending since 1953. The claimant asked the Supreme Court to review the entire case including the original decision of the Court of Appeals for the Eighth Circuit which reversed the jury verdict against the Government's charges that the labeling failed to comply with the dietary food regulations. The Supreme Court refused the petition.

Significant district court decisions included one holding for the Government in a case involving an insanitary wholesale grocery warehouse. The court observed that copies of analyses need not be furnished under section 704(d) of the act to warehousemen and that section 301(k) of the act is applicable to warehousemen who maintain insanitary establishments.

Findings of fact and conclusions of law handed down by a district court in a seizure case involving incubator reject shell eggs were significant because of the court's conclusion that shell incubator reject eggs are food within the meaning of the act regardless of the intended use of the eggs. This decision supports the statement of policy published in the Federal Register of September 5, 1958, holding incubator rejects to be adulterated if not denatured so as to preclude their use as food.

In another seizure case involving frozen whole eggs, the district court strongly supported the validity of bacteriological and chemical

methods used by the Food and Drug Administration to establish decomposition in a product of this kind.

In a prosecution case involving a vitamin-mineral supplement, the district court, contrary to the decisions of numerous other courts, directed acquittal on his interpretation that the act does not apply to verbal misbranding.

Changes in the Law and Regulations

The enactment of the food additives amendment (Public Law 85-929) on September 6, 1958, was discussed in the previous report. Its requirements went into effect March 5, with an additional year permitted to obtain clearance by regulation for substances already in use before January 1, 1958, and not generally recognized by experts as safe. (See "Regulations.")

Public Law 86-2, approved March 17, 1959, amends the act to permit the temporary listing and certification of Citrus Red No. 2 for coloring mature oranges under tolerances found safe by the Secretary. FDC Red No. 32, permitted by statute for coloring oranges, was dropped at the same time. The new color, developed especially for use on oranges, permits a greater margin of safety.

A number of bills that did not pass during the 85th Congress were reintroduced in the early days of the 86th Congress. Among them were bills to provide for the establishment of tolerances for colors used in foods, drugs, and cosmetics; the pretesting of new cosmetics; label warnings for hazardous chemicals; better controls over barbiturates and amphetamine; and a change in the labeling requirements for preservatives applied to crops after harvest. These bills are all pending.

REGULATIONS

Drugs.—The labeling requirements of the insulin regulations were amended in March 1959 to require that after February 1, 1960, the expiration date must appear on each vial as well as on each package of an insulin-containing drug. Effective July 2, 1959, the term "insulin" was redefined to exempt from certification partially purified insulin intended for use in insulin-containing drugs.

Twenty-one new monographs and 417 amendments were added to the antibiotic regulations, and 423 permits were made effective to exempt medicated feeds from certification requirements.

A proposal was published, with opportunity for comment, on warning statements necessary for the protection of users of nonprescription drugs.

A statement of policy was issued on timed-release medicines, which have in some cases released potent medication too fast or at a slower

rate than the physician expects. It provides that a multiple-dose product containing a quantity of active ingredient not recognized as safe for administration as a single dose must have an effective new-drug application, including data to establish that the active ingredients will be released as labeled.

Among the other policy statements published were a comprehensive statement on the labeling of drug preparations containing salicylates, a statement on the warnings required of nonprescription drugs offered for use in minor sore throats, and a statement that injectable iron preparations for veterinary use are regarded as new drugs.

Food additives.—Preprints of proposed food additive regulations were distributed on November 24, the first day of a well-attended 2-day food additive conference of FDA, members of the Food Law Institute, and representatives of the Manufacturing Chemists Association. These proposed regulations, published in the Federal Register of December 9, 1958, are both procedural and interpretive. They list 188 food additives proposed for exemption because they are generally recognized as safe for intended uses. The procedural regulations went into effect on March 28, but time was extended for comment on the proposed exemptions.

A second list of proposed exemptions, published on April 21, 1959, covers natural flavors and spices. Twenty-eight petitions for tolerances had been received by the end of the fiscal year and two were permitted on February 12, setting tolerances for an antioxidant to be used to protect forage crops from losing nutrients from oxidation, and establishing specified tolerances for this substance in meat and eggs of animals and poultry fed the treated feed.

The industry has been urged to avoid delay in filing applications for substances in use before January 1, 1958, and not generally recognized by experts as safe. A last-minute deluge of applications before the March 1960 deadline, or failure to file by then, would require discontinuing use of such substances, unless an extension of time is found by the Secretary to be justified and without danger to the public health.

Coal-tar colors.—Four dyes were removed from the list of colors certifiable for use in foods, drugs, and cosmetics because of tests showing them to injure test animals. Two have been used in butter, oleomargarine, and other oils and fats; the other two are little used in foods. These dyes are still permitted for use in externally applied drugs and cosmetics.

Because of injury to test animals, a proposal was made to remove 17 colors from the list of those certifiable for use in drugs and cosmetics, while continuing to certify 13 for use in externally applied drugs and cosmetics. Some of these colors are widely used in lip-

sticks, which are not considered "externally applied" because they are partially ingested and absorbed through the mucous membranes. The proposal has been opposed by drug and cosmetic manufacturers who would be seriously affected by the delisting. Although there is no evidence that lipsticks now employing these colors are injurious, there is no authority under the act to establish tolerances for a coal-tar color found not "harmless" in any concentration. (See "Court Interpretations.")

At the request of the color manufacturing industry, specifications for a red coal-tar color for use in foods, drugs, and cosmetics were changed to improve the purity of this color.

A proposal was published to amend the regulations by providing for cancellation of certificates issued on colors subsequently delisted.

Pesticides.—In the fiscal year, 130 permanent residue tolerances or exemptions were established for the use of 22 pesticide chemicals on raw agricultural commodities. Since the enactment of the pesticide chemicals amendment, 2,070 tolerances or exemptions have been enacted for 104 pesticide chemicals. Six temporary tolerances were established for 1 chemical pesticide and 44 temporary exemptions for a microbial pesticide capable of killing insect pests but not injurious to man or other warm-blooded animals.

One of the tolerances established in 1959 permits the use of the antibiotic chlortetracycline in some forms of uncooked seafood to retard bacterial spoilage. The only other permitted use of antibiotics in food is for uncooked-poultry dips.

Food standards.—Definitions and standards of identity were promulgated for six canned fruits to be artificially sweetened with non-nutritive substances. The words "artificially sweetened" are to appear on the label as the first two words in the name of each food. They are also required to comply with the labeling requirements of foods for special dietary use.

Standards became effective for frozen concentrate for lemonade, except for certain provisions that were stayed by objections requiring a hearing.

The identity standard for canned pears was amended to provide for the use, with label declaration, of artificial green coloring in mint-flavored pears and artificial red coloring in spice-flavored pears. An amendment to permit artificial red coloring in cinnamon-flavored apple and crabapple jelly was stayed by objections requesting hearings.

The standards for bakery products were amended to permit the use of limited proportions of wheat gluten to strengthen roll and bun dough, and also for loaves of raisin bread.

The sponsors of a standard for samsoe cheese petitioned to have the maximum moisture limit lowered from 46 to 41. This avoided a

controversy with the manufacturers of swiss cheese, which has a 41-percent moisture limit.

Scientific Investigations

New problems of enforcement constantly arise and their solution requires continuous research along many scientific lines. The Bureau of Biological and Physical Sciences coordinates the work of seven scientific Divisions, each having its particular responsibilities. Their work is to develop methods of analysis; to evaluate the safety of pesticides and food additives; to work out effective specifications for certifiable antibiotic preparations, insulin, and coal-tar colors; to provide a sound scientific basis for administrative policies and to confer with representatives of the industries involved; and to improve certification enforcement and procedures.

During the past several years the divisions lagged in the application of the newer instrumental techniques to their scientific problems because funds for procuring the required equipment were not available. More recently, and especially during fiscal 1959, the situation has improved, and divisions are making increasing use of spectrophotometry, gas chromatography, X-ray techniques, electrophoresis, and spectrofluorometry.

Eighteen projects relating to improvements of methods for antibiotic assay have been completed, and 7 are in progress. An example is a microbial method which will detect as little as 0.05 unit of penicillin per milliliter of milk in $2\frac{1}{2}$ hours. Twenty clinical studies on man, related to antibiotics (e.g., levels of antibiotics in blood and pain evaluation studies) have been completed, and one is in progress. In addition, 18 miscellaneous projects have been completed and 6 are still in progress. To illustrate, the fourth nationwide survey of fluid milk for antibiotic residues (1,170 samples) has been completed and the results have been published. In cooperation with manufacturers, over 300 batches of antibiotic diagnostic disks were checked for conformity with specifications.

Work continues on the determination of the exact chemical structure, the identification of intermediates, and the purity of certifiable coal-tar colors. Progress has been constant in the development of methods for cosmetic analysis in this field. A compendium of methods of analysis for cosmetics has been composed, and will be ready for publication in the near future.

Development of methods for the detection and determination of pesticide residues, and analytical methods for detecting food additives, are important continuing projects. A corollary responsibility is the review of pesticide and food additive petitions.

Studies of decomposition in fish, eggs, and butter have continued. Progress has been made in the identification of the toxic principle which occurs in certain byproduct fats and causes a fatal edema disease in chickens. Various studies on milk have been completed and reported: The second nationwide survey of pesticide residues, the persistence of mineral oil residues as a result of mastitis treatments, the occurrence of heptachlor or its epoxide in milk as a result of feeding low levels of heptachlor to the cow, and the take-up of paraffin waxes by carton-packaged milk.

The bacteriological survey of frozen precooked foods has continued. Some 3,000 miscellaneous products have been examined, and a general report of the work to date is being compiled. It is expected to have a far-reaching effect on inspectional and bacteriological standards in the frozen food industry.

An improved procedure for isolating *Salmonella* from dried eggs has been developed. Significant progress has been made in devising a serological test for *Staphylococcus* and its enterotoxin. Both organisms frequently figure in food-poisoning episodes.

Work on methods of filth in foods continues. A revision of Food and Drug Circular No. 1, "The Microanalysis of Food and Drug Products," issued in 1944, was sent to the printer in June 1959.³ Work also continues on the qualitative identification of drugs and their mixtures by means of a keyed classification of microcrystal identification tests.

In the past year much time has been spent in developing analytical techniques and checking new reference standards for a number of items which will appear in the 16th revision of the U.S. Pharmacopeia. The potassium bromide disk technique has been successfully applied to the infrared spectrophotometric determination of adrenal cortex hormones, barbiturates, ethinyltestosterone, quinidine, and several nitrate esters. A uniform simplified method for analyzing alkaloid-containing drugs has been developed.

A new chemical method for folic acid has been developed and published. A chemical method for vitamin D has been developed and, with some modification, has been adopted for inclusion in U.S.P. XVI.

FDA has been concerned over claims in labeling and advertising that enzymes have an established nutritional value. Experiments indicate that the normal animal has a tremendous capacity to produce the enzymes needed for the digestive process and that in the case of the normal individual there appears to be no need for supplementing the diet with enzymes. Studies of the effect of heat upon fats, and

³ "Microscopic-Analytical Methods in Food and Drug Control," Food and Drug Technical Bulletin No. 1.

of the effect of food additives upon the nutritional status of the experimental animal are being continued.

Assay of desiccated thyroid by the U.S.P. chemical method for iodine content, and by bioassay for physiological activity, showed that desiccated thyroid stored at room temperature does not deteriorate over a 3-month period. Over long periods of time (20 years) there is a change in activity. Apparently there is no direct relationship between iodine content and biological activity.

Variability in the U.S.P. method for the assay of ACTH has led to a reexamination of bioassay procedures, and a new approach is being tested.

Work on the toxicity and metabolism of food colors continues. A study of aerosol hair-spray preparations, with animals and with human volunteers, showed that these products are not harmful when applied in the usual manner.

A 5-month clinical study of 1,100 surgical operations was conducted on postsurgical wound infections with bacteria cultures made of incisions at the time of wound closure, and if infection developed later all strains of *Staphylococci* were phage typed. Cultures were also made of nasal secretions of operating personnel to identify carriers of infection resistant to antibiotics being employed.

The pilot study on reporting adverse reactions to drugs continued as an active project. A handbook was completed on reporting procedures for use of participating hospitals. The ultimate goal of the study is a permanent reporting system.

Among the veterinary studies at FDA's Beltsville laboratory were a "pink eye" remedy, in a Freon-type container, for sheep and cattle. The tests showed that labeled directions were inadequate for proper use and firms marketing similar items were informed that the distance recommended for spraying the preparation into the eyes of affected animals was so close that irritation resulted. Various injectable iron preparations recommended for use in the treatment of baby pig anemia are under study for efficacy and safety.

Enforcement Statistics

The 27,502 establishment inspections conducted by FDA were divided into 21,840 basic factory and warehouse inspections, and 1,813 of pesticide practices, 3,689 of public eating places to check on notification of the service of oleomargarine, and 160 involving illegal sales of prescription drugs. Of 29,747 domestic samples collected, 21,264 represented foods, 8,048 drugs and devices, 259 cosmetics and colors, and 176 miscellaneous.

In the 173 criminal actions terminated (or terminated for some defendants) in the Federal courts during 1939, fines assessed totaled

\$115,831. Jail sentences ranging from 1 month to 2 years were imposed in 22 cases involving 25 defendants. Twelve individuals were required to serve imposed sentences, averaging 8 months; they were suspended for 13, on condition that violative practices be discontinued. Records of actions terminated in the courts were published in 1,610 notices of judgment.

Table 2.—Number of samples on which criminal prosecutions and seizures were based and number of court actions instituted during the fiscal year 1959

| Item | Total | | Criminal prosecutions instituted | | Seizures accomplished | | Injunctions requested |
|---------------------------|--------------------------------|---------|----------------------------------|---------|-----------------------|---------|-----------------------|
| | Violative samples ¹ | Actions | Violative samples | Actions | Violative samples | Actions | |
| Total..... | 2,549 | 1,270 | 879 | 206 | 1,670 | 1,047 | 17 |
| Foods..... | 1,619 | 952 | 324 | 111 | 1,295 | 828 | 13 |
| Drugs and devices..... | 919 | 309 | 555 | 95 | 364 | 210 | 4 |
| Cosmetics and colors..... | 5 | 5 | | | 5 | 5 | |
| Caustic poisons..... | 6 | 4 | | | 6 | 4 | |

¹ The number of samples on which the actions are based always exceeds the number of actions; in seizures a variety of articles may be contained in a single shipment, while in criminal actions each sample usually represents a single shipment which forms one count of the action.

Table 3.—Import samples collected, examinations made, and lots detained during the fiscal year 1959

| Item | Samples collected | Examinations made | Lots detained |
|---|-------------------|-------------------|---------------|
| Total..... | 11,284 | 16,849 | 5,463 |
| Foods..... | 8,691 | 15,677 | 2,675 |
| Drugs and devices..... | 2,141 | 840 | 2,467 |
| Cosmetics, colors, and miscellaneous..... | 452 | 332 | 321 |

Office of Vocational Rehabilitation

Progress in 1959 Points Up Proportions Program Has Reached in 5 Years Under Public Law 565

IN THE 5 YEARS since the 1954 amendments to the Federal vocational rehabilitation legislation were enacted as Public Law 565, new proportions were reached in the public program for rehabilitating disabled men and women into employment.

The annual totals of rehabilitated persons increased greatly—the total during the fiscal year of 1959¹ was 45 percent greater than in 1954—but the new legislation also provided the incentives and means for making rehabilitation a much more effective instrument for the welfare of the disabled and the handicapped.

For 4 successive years new high records were reached in the number of disabled persons rehabilitated into employment by State and territorial rehabilitation agencies. The total reached 80,739 for the fiscal year ending June 30, 1959. It was a gain of 9 percent over the previous year.

The total number of persons rehabilitated during the 5 years is more than 350,000. Among them are more than 17,000 professional people—doctors, teachers, engineers, and others. Some 38,000 went into skilled trades, and another 30,000 went into agriculture. Almost every trade, vocation, and profession is represented. In addition to the satisfactions they gained from the ability to work productively, those who were rehabilitated during the 5-year period are estimated to have increased their aggregate earnings, in their first year after rehabilitation, 5 to 6 times over their previous earnings.

REHABILITATIONS IN 1959

In the new record of 80,739 handicapped persons restored to useful activity and established in employment by the State vocational

¹ Unless otherwise indicated, all subsequent references to 1959 will be to the fiscal year, that is, to the period between July 1, 1958, and June 30, 1959.

rehabilitation agencies in 1959, the preponderance of disability continued to be in orthopedic impairments—amputations or other crippling conditions. About 38 percent (or 30,700) of the rehabilitants had this type of handicap, and, of these, about three-fifths were injured in accidents, and about one-fifth were handicapped by poliomyelitis, osteomyelitis, or arthritis.

Referrals came from many sources, but the largest proportion (33 percent) was from physicians, health agencies, or hospitals. Another 14 percent was referred by public welfare agencies, and 7 percent by State employment service offices. About 12 percent applied for services on their own initiative. The remainder came from such sources as educational institutions, employers, and unions.

More than half of the rehabilitants of 1959 had dependents, and 63 percent were men.

The occupations in which rehabilitants were placed in 1959 included nearly all types of work. The proportions employed in the major occupational groups remain similar to those in recent years—skilled and semiskilled workers, 26 percent; clerical and sales, 17 percent; service workers, 19 percent; family workers and housewives, 13 percent; professional, semiprofessional, and managerial, 9 percent; agriculture, 9 percent; and unskilled, 7 percent.

ECONOMIC VALUE OF THE PROGRAM

The extent to which the public vocational rehabilitation program can improve the economic status of handicapped persons, increase the Nation's productive potential, and relieve some of the dependency upon public assistance was strikingly shown in 1959.

About 58,400 of the 80,739 handicapped persons prepared for and placed in employment during 1959 were unemployed when their rehabilitation began. The group that had been working at the time they were accepted for service were earning at the rate of \$25 million a year and generally were employed in unsafe, unsuitable, or part-time work. In the first full year of employment for the entire group after rehabilitation, it is estimated that they will have earnings at the rate of \$156 million.

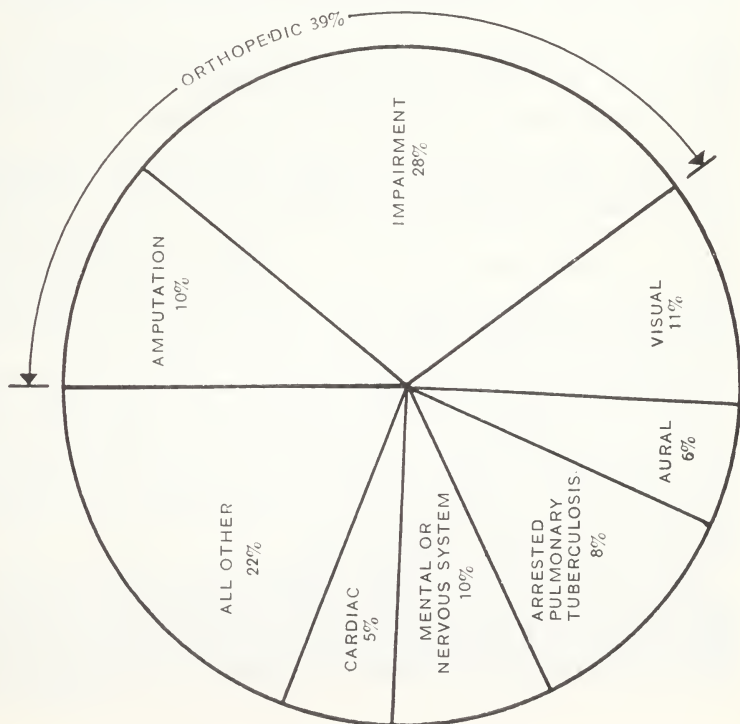
Nearly 16,000 of those who were rehabilitated received public assistance at some time during the process, at the estimated rate of \$15 million a year. The estimated total cost of the rehabilitation of these persons was about \$14 million.

It is estimated further that those who were established or placed in employment through the public rehabilitation program will pay, during the remainder of their working lives, several dollars in Federal income taxes for every Federal dollar invested in their rehabilitation, so that the conversion of so many persons from tax consumers to taxpayers is of pronounced economic benefit to the Nation.

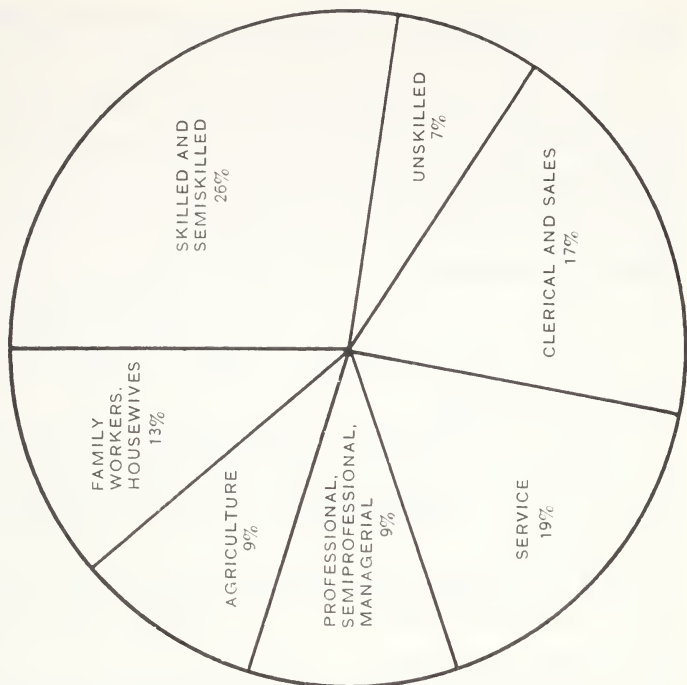
Chart 1.—DISABILITIES AND MAJOR OCCUPATIONAL GROUPS

Percent of rehabilitants, by types of disability at acceptance and by major occupational group at closure, fiscal year 1959

DISABILITIES



MAJOR OCCUPATIONS



New Law Marked a Turning Point in Rehabilitation

The signing of Public Law 565, in August 1954, was a notable turning point in the public rehabilitation program, which has been in existence since 1920. To all of those interested in or concerned with rehabilitation, it presented opportunities to strike out in new directions, to develop new services and expand tested ones, to prepare increased numbers of persons for work in rehabilitation, and to place State and Federal relationships on a much sounder basis.

Specifically, the legislation authorized measures by which disability and its handicapping effects are being attacked through—

1. Research into rehabilitation, which is opening new vistas of service to the disabled.
2. An improved structure of Federal grants to States in support of their basic programs, and to extend and improve services.
3. Incentives for greater unity of community, State, and Federal efforts to restore disabled persons to employment with its accompanying satisfactions.
4. New or expanded rehabilitation facilities which are providing services to disabled persons in or with greater convenience to their home areas.
5. A nationwide effort to increase, improve, and prepare professional personnel in all fields concerned with rehabilitation.

Research and Demonstration Projects Continue To Broaden Base for Rehabilitation Program's Future

A most dynamic part of the public rehabilitation program is in research and demonstration activities. In 5 years, the marked enthusiasm among State agencies, educational institutions, research groups, and other agencies directly or indirectly concerned with this phase of the program brought 469 requests for grants, of which 243 were approved through fiscal 1959. Projects are now being operated in 43 States, the District of Columbia, and Puerto Rico.

Applications for grants are considered by the National Advisory Council on Vocational Rehabilitation, which meets three times a year and advises the Director of the Office in awarding grants. The Council is composed of 12 members who are leaders in rehabilitation or allied fields, or public affairs. Miss Mary E. Switzer, Director of the Office, is Chairman of the Council.

The Council considers project applications from any or all of these standpoints: their potentialities for extending existing knowledge so that vocational rehabilitation problems common to all or several States may be resolved; the establishment of pilot or experimental attempts

to test or establish standards or methods for general application in the rehabilitation program; and the provision of special types of rehabilitation services so that their value may be tested and information developed on methods, techniques, and costs.

Thus there is provision for the development of facts and data by research; for projects to demonstrate applications of knowledge or to test it under actual conditions; and special demonstration projects, whose purpose is to accelerate services to certain categories of the disabled through prompt application of knowledge and experience acquired through research.

PROJECTS INCREASE SHARPLY

The curve of activity in research and demonstration projects has risen sharply. During 1955, the first year of these grants, 18 projects in 8 States received approval, with an expenditure of \$298,960.

In 1959, 67 applications were approved, and the expenditure for the year—including \$3,127,700 for continuation of 116 on-going projects previously approved—was \$4,999,700.

Of the 67 projects approved in 1959, there were 54 in research and demonstration, and 13 were special demonstrations in selected categories of severe disability.

Few research programs administer a system of grants covering such a divergency of areas and types of projects. There is unique and challenging opportunity for the researcher and the practitioner alike to investigate and test a wide variety of medical, psychological, sociological, and vocational problems germane to handicapping conditions. These are projects looking into such major disabilities as blindness, epilepsy, orthopedic handicaps, deafness, speech and hearing difficulties, cerebral palsy, aging and chronic illness, disability complicated by emotional problems, and mental retardation. And the range of projects is wide.

PROJECTS IN A WIDE RANGE

For instance, the growing number of aged persons in our population is presenting new and difficult problems. A project initiated in 1958, providing special counseling and work adjustment training for disabled workers 60 years of age and older, has shown striking results in the rehabilitation of older people. Of 169 persons—140 male—accepted in a 12-month period, 126 were evaluated as employable, and 72 were placed in employment. Fifty-six of the total group were 60–64 years of age, 33 were 65–69, and the rest were 70 or older. Most of these persons had multiple disabilities, and all referrals to the project were through the State vocational rehabilitation agency. The techniques used in conducting the project have been firmly established, and it is now possible to duplicate it nationally as selected demonstrations.

A project approved in 1958 has developed a language abilities survey test for use in aphasia—the partial or complete loss of speech which can result from brain injuries, including strokes. There are preliminary indications that the new evaluation technique will greatly enhance the ability of aphasia victims to regain their speech.

Problems of far more than ordinary difficulty are attacked. In 1956 funds were provided to develop methods for rehabilitation of the deaf-blind, where intense difficulties are manifest. The results have been twofold: a seven-volume series of books has been published on the characteristics of deaf-blind persons and the methods and techniques whereby they may be taught communicative skills, so that they may have greater opportunity for rehabilitation. This includes a simplified and standardized communication system, which has since been adopted for international use by the World Council for the Welfare of the Blind.

Two other projects have independently developed (1) a scale of employability for handicapped persons, and (2) a standardized method for evaluating the residual ability of disabled persons to function physically, socially, emotionally, and vocationally. Both of these instruments will soon be tested nationally.

PROJECTS FOR THE AGING

One project approved in 1956 and one approved in 1957 were concerned with vocational rehabilitation services for elderly chronically ill and disabled persons. The first project, exploring the extent to which disabled persons in public and private nursing homes can be returned to community life and employment, is having remarkable success. To date, 27 homes with 1,282 patients have been studied. The goal of patient rehabilitation and discharge is replacing the goal of custodial care until death.

In the second study the general objective is to demonstrate and measure the extent to which financial, personal, and social dependency of patients aged 45 and over in public hospitals can be reduced by restoring their functional abilities, and by retraining, so that their vocational skills may be used within the hospital or in the community. Of the first group of 40 patients studied, 37 achieved their potential level of functional efficiency. Of these, 9 required continued hospital care, 3 were discharged to homes, and the remaining 25 were able to live comfortably outside the hospital with varying degrees of supervision.

SURGICAL RELIEF FOR NERVOUS DISORDERS

In June of 1957, funds were provided for support of a project concerned with a new surgical relief for Parkinsonism, a chronic and progressive neurologic disease, the main symptoms of which are tremor

and rigidity. The purpose of the OVR grant is to permit an organized multidiscipline team approach to this disorder, and similar disabilities. Emphasis on vocational rehabilitation of patients selected for this procedure has helped a large proportion of the males either to maintain their vocational status or return to work after up to 8 years of unemployment; similarly, women patients have been fully returned to their homemaking duties.

ADVANCES IN PROSTHETICS

Real progress in limb substitutes has not been achieved until recent years. Since 1957 the Office has sponsored several projects in artificial limbs and bracing. Working models have been developed employing pneumatic principles, and there is current research aimed at refining and simplifying the present models, to achieve lighter weight, greater responsiveness, and more precise controls.

AGRICULTURAL PROJECTS

A project approved in July 1956, to demonstrate the benefits of coordinating the services of State vocational rehabilitation agencies and the agricultural agencies in the rehabilitation of blind farmers, has had remarkable success and has gained national recognition. Several blind or partially sighted trainees have become farm owners or tenant farmers. One totally blind man purchased his farm outright with the assistance of a Farmers Home Administration loan. This is the first farm ownership loan to be made to a civilian blind person in the United States. Because of the success of this project, the U.S. Department of Agriculture and the Office are planning a nationwide program to acquaint State vocational rehabilitation agencies, State extension services, and local offices of the Farmers Home Administration with the opportunities this project makes available to blind or partially sighted farmers.

PROJECTS IN MENTAL HEALTH

Two projects among several approved in the general area of mental health are specifically concerned with employer attitudes and practices in the hiring of ex-mental hospital patients, and rehabilitation of hospitalized chronic schizophrenic patients. The former study has been completed and points up the tremendous problem of communication and the magnitude of resistance to attitudinal changes toward these persons. The second study is in its second operative year and its reports show that of the first 100 patients under study, 63 are now reestablished in the community. Treatment includes the use of tranquilizers; provision of realistic, attainable vocational and social goals by the State vocational rehabilitation agency; a social psychiatric program aimed at establishing and maintaining stable patient-patient and staff-patient relationships; and numerous provisions for blurring hospital-community boundaries.

EPILEPTICS AT WORK

A study being made of the work performance of a group of epileptics in a large community has shown in its initial phases that there is little basis for discrimination against epileptics by employers, on the grounds of absenteeism, accidents, or production, if proper medical controls are used. Recent medical reports indicate that it is possible to remove seizures as a barrier to employment in three-fourths of otherwise employable epileptics.

SELECTED DEMONSTRATIONS

The selected demonstration program, which started at the beginning of fiscal 1958, completed its second year in 1959, with 42 projects in 29 States. They are:

| | |
|--|----|
| Occupational centers for mentally retarded..... | 14 |
| Work classification and evaluation centers for cerebral palsied..... | 4 |
| Work adjustment centers for disabled persons with emotional problems.... | 5 |
| Occupational adjustment services for epileptics..... | 2 |
| Services for the homebound: | |
| Industrial homework..... | 2 |
| Vocational adjustment in a community home-care program..... | 1 |
| Blind and visually handicapped: Optical aids clinics..... | 10 |
| Work evaluation of older disabled workers..... | 2 |
| Rehabilitation of the chronically ill..... | 2 |

These projects are all in different States, with the exception of those for the mentally retarded, where two projects are in one large State.

REHABILITATION RESEARCH FELLOWSHIP PROGRAM

A research fellowship program was initiated by the Office in October 1957. Its purpose is to enlarge and enrich research resources in rehabilitation through development of competent research workers in professional fields which contribute to vocational rehabilitation.

In 1959, 10 awards were approved, bringing the total number to 22 fellowships in the medical, natural, behavioral, and social sciences as they relate to the public rehabilitation program.

State-Federal Relationships Under New Law Provide Incentives for Expansion of Services to Disabled

A notable accomplishment of the new legislation was the means for placing the State and Federal relationship in vocational rehabilitation on a sounder basis, through an improved financial structure, and through ways for Federal aid to reach more directly into communities.

Under the stimulus of new formulas for determining Federal allotments to the States in support of their basic programs, the States, in the aggregate, have increased their appropriations for rehabilitation

by 100 percent—from \$13.9 million in 1954 to \$27.8 million in 1959. The Federal appropriations for basic support of State programs increased at the same rate, from \$23 million in 1954 to \$45.5 million in 1959.

EXPANSION OF STAFFS AND SERVICES

With these enlarging funds the States were able to increase their agency staffs on a sound budgetary basis. Agencies that were woefully understaffed have been able to expand their operations and to reach more disabled people in more areas and to provide them with new and better services that emerge from a revitalized program.

At the end of 1959 the 90 rehabilitation agencies in the States and Territories had a total staff of about 4,200 persons, about 55 percent more than in 1954.

Of the 90 agencies, 18 were serving all the disabled, 36 were serving only the blind, and 36 serving all but the blind. The agencies were in each of the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

STATE PLANS

Under the 1954 amendments, the State plans, as prerequisites for Federal grants, have been greatly simplified and revised, so as to place greater responsibility on the States for administration of their programs.

During the ensuing 5 years, plans have been approved for new programs in the Virgin Islands and Guam, and Nevada has established a separate program for the blind. Massachusetts, New Jersey, South Carolina, and the District of Columbia have established independently operated rehabilitation agencies, as has Colorado, which recently combined its general and separate program for the blind into a single agency.

The statutory foundations for several plans have been strengthened. State agencies whose plans contain provisions for establishment of rehabilitation facilities now number 55, compared to 27 in 1955. In the same period, the number of States with plans providing for establishment of sheltered workshops grew from 33 to 49.

During 1959, in connection with the elevation of Alaska from territorial status to statehood, Public Law 86-70 added certain technical amendments to the Vocational Rehabilitation Act, in order to put the method of computing Alaska's allotment and Federal share percentages on the same per capita income basis used for her sister States. This law also provides that these amendments shall not become effective before 1962, and provides for a 5-year transition period to cushion the effects of a consequent substantial decrease in the Federal allotment to Alaska.

No special provisions will be needed in the case of Hawaii's achieving of statehood, other than those assuring that her allotment and Federal share percentages will be based on the customary basis.

STATE PROGRAM DEVELOPMENT

The 5 years since 1954 have been a period of rapid growth and expansion for State vocational rehabilitation agencies. During this period a major need of State agency administrators was establishment of policies and procedures in many newly developed program areas.

The Office has worked closely with the Council of State Directors of Vocational Rehabilitation in identifying major problems common to a majority of the States and seeking to overcome these problems through cooperatively planned activities.

MORE STATE AND COMMUNITY FACILITIES

Part of the philosophy of rehabilitation expressed in Public Law 565 was that emphasis should be placed on bringing facilities for rehabilitation services to the disabled in or near their home areas.

In 1954 the country had an accumulation of knowledge about rehabilitation facilities, arising out of experience in the rehabilitation of veterans. The number of facilities where this knowledge could be used for the benefit of disabled civilians was, however, relatively small.

There were perhaps 50 communities in 1954 known to have laid groundwork for rehabilitation facilities, and to be attempting to surmount the difficulties of securing funds, medical supervision, and specialized staff.

In the ensuing 5 years there has been a striking growth in the number of rehabilitation facilities and centers. Some have been established purely as community ventures and with local funds. But most of their sponsors sought Federal aid, available through the new legislation and through amendments to the Hill-Burton hospital construction legislation, also amended in 1954 to include aid for construction of rehabilitation facilities.

EXPANSION GRANTS

As an immediate measure, the new legislation provided funds to be made available to States and communities over a period of 2 years, to help them with expansion of their programs. This period was subsequently extended, but it was permitted to expire June 30, 1958.

Under this provision, Federal funds of more than \$2.7 million were expended on 259 community projects in the 4-year period. State and private resources added \$1.35 million, and private agencies spent substantial sums above this amount. Only 13 percent of these expansion projects were entirely State conducted. The remaining 86 percent were conducted under other auspices, primarily by voluntary groups,

in cooperation with State agencies. More than 75 percent of the funds were used for establishment or expansion of rehabilitation facilities and sheltered workshops.

EXTENSION AND IMPROVEMENT GRANTS

The 1954 legislation has a provision for grants to State agencies for extension and improvement of existing services.

Such projects may be grouped into three classifications: (1) establishment of workshops and rehabilitation facilities, including optical aids centers; (2) improvement of specialized services to disability groups such as mentally ill, mentally retarded, homebound, epileptic, cardiac, and other disability groups; and (3) improvement of program administration, such as organization, supervision, medical consultation, special studies, and research.

A little more than \$1 million was awarded in 94 grants to 55 agencies in 41 States during 1959, permitting these agencies to serve the handicapped better without diverting part of the Federal basic support funds for the progressive development of their continuing programs.

In 1955 there were 14 extension and improvement projects under-way for establishment or improvement of facilities and workshops. In 1959 there were 32 such projects, bringing the 5-year total of extension and improvement projects for these purposes to 158, one-third of all extension and improvement projects that were undertaken.

The range of projects in the 5-year period, and the totals are:

| | 1955 | 1959 | 5-year total |
|--|------|------|-----------------|
| (1) Establishment of rehabilitation facilities, workshops and visual aids centers..... | 14 | 32 | 158 |
| (2) Improved or specialized services to disability groups--- | 21 | 16 | 112 |
| (3) Improved program administration..... | 33 | 46 | 206 |
| Total..... | 68 | 94 | 476 |

STATE-FEDERAL EXPENDITURES FOR FACILITIES AND WORKSHOPS

The State agencies also have discretionary powers to spend basic grant funds for rehabilitation facilities and workshops.

In the fiscal periods of 1955 through 1959, the total State and Federal funds expended for facilities and workshops under this provision, and for extension and improvement, amounted to almost \$8 million, of which the Federal share was more than \$5 million.

Interest in the development of community workshops continues undiminished. There is an ever-increasing awareness that the workshop—as a part of the rehabilitation process—is frequently an essential link between hospital bed and job. At the close of fiscal 1958, 1,431 disabled persons were employed in sheltered workshops—75 percent more than in 1954—and 1,682 were trained during the year, a figure double that of 1954.

AID UNDER HOSPITAL CONSTRUCTION LEGISLATION

One of the ways in which the number of rehabilitation centers and facilities has been increased is through funds available to States and communities for construction aid under the 1954 amendments to Hill-Burton legislation, which made construction for rehabilitation purposes eligible for such Federal aid.

Since passage of this amended legislation, 114 such projects were approved through 1959. Their total cost was \$79,716,687, of which the Federal contribution was \$21,146,715. These projects were located in 45 States, the District of Columbia, and Puerto Rico, and brought rehabilitation services to many thousands of disabled persons. The Office of Vocational Rehabilitation and the Office of the Surgeon General of the Public Health Service have joint authority for approval of the projects.

It is significant that 15 university medical schools received grants toward creation of rehabilitation facilities, which will help to spread assurance to many thousands of disabled persons that the medical profession is increasingly aware of modern rehabilitation services, and of where they are available within reasonable distances. Though the legislation has enabled a greater number of facilities and workshops, other legislation that has been proposed to broaden the scope of rehabilitation could increase the need still more, so that more establishments, oriented both medically and vocationally, and adequately staffed, would cover more of the country.

PROFESSIONAL ORGANIZATIONS AMONG CENTERS

With encouragement and assistance from the Office of Vocational Rehabilitation, the rehabilitation centers of the country have organized a professional group—the Conference of Rehabilitation Centers—devoted to development of higher standards and the collation and exchange of information. Another organization—the National Institute on Sheltered Workshop Standards—has been formed and works closely with the National Rehabilitation Association and the Association of Sheltered Workshops in the difficult and complicated task of devising better standards and operations of sheltered workshops. This task is being aided by research or demonstration grants to workshops and other facilities to find answers to common problems.

The Office has aided these groups in the production of guides, manuals, and reports of operations which have helped to meet the growing demand for planning materials for the varied kinds of facilities and centers which may be created.

DEMAND FOR SPECIAL FACILITIES

A continuing demand for specialized facilities is noted, and a considerable increase has been made in those designed for helping the

mentally retarded, and for those with speech and hearing difficulties.

While hundreds of new rehabilitation centers and facilities have been created and operated by voluntary agencies with the help of Federal funds, State agencies have also used Federal aid to create special State-operated facilities that can supply vocational training and other services that are especially needed by their rehabilitation clients. Now there are five such centers—in Virginia, West Virginia, Oklahoma, Iowa, and Pennsylvania.

Other communities have established facilities for special categories of disability. More than 15 facilities are in operation where the blind, particularly the newly blind, may learn the difficult adjustments of living without sight.

The national emphasis that is being placed on the relief and treatment of mental illness is reflected in rehabilitation facilities for the mentally ill. Several States are operating rehabilitation facilities in conjunction with mental hospitals, where patients' skills and aptitudes may be evaluated and appropriate training provided so that they may enter employment with increased confidence.

One State agency is now operating four of the kind of facility that has become known as "Halfway House," where ex-mental patients are learning how to live as part of the community at the same time that they are establishing themselves in employment.

Training of Qualified Personnel for All Phases of Program Is Expanded in Numbers and Objectives

The system of grants for expansion and improvement of the preparation of professional personnel in all fields concerned with rehabilitation of the disabled was expanded greatly in the 5-year period, under pressure of demand for qualified personnel and the need for financial assistance on the part of educational institutions.

Appropriations for the fifth year of operation were \$4.8 million, a significant advance from the \$900,000 available in 1955.

Teaching grants to colleges and universities numbered 197 in 1959, as contrasted with 176 in 1958, or with 77 in 1955, and totaled almost \$2.4 million. These grants enabled educational institutions to employ additional faculty and to otherwise strengthen their instructional resources.

Traineeship grants to colleges and universities to provide scholarship assistance to trainees enrolled in basic or advanced courses in professional fields supplying personnel for rehabilitation activities gave assistance to 1,028 trainees in 1959, at a cost just over \$2.4 million. For the first time the amount devoted to traineeships exceeded the

total for teaching grants. It is anticipated that this trend will increase. In 1955 this phase of training reached about 200 students, at a cost of \$113,000.

Long-range objectives of the training grants program are to add to the supply of qualified personnel and to continue to enhance the competence of workers already engaged in rehabilitation services. The major fields in which training grants were made in 1959 were medicine, nursing, occupational therapy, physical therapy, prosthetics, psychology, rehabilitation counseling, social work, speech pathology, and audiology.

MEDICAL STUDENTS INDOCTRINATED

One of the foremost objectives of the training program is to give all medical students graduating from schools of medicine an indoctrination in rehabilitation philosophy and practice, so that they may incorporate principles of rehabilitation in approaching chronically ill or disabled patients. To that end, grants were made in 1959 to 25 medical schools to provide the necessary faculty and supporting services for orienting all medical students to rehabilitation.

Another primary goal is to increase the number of physicians who are qualified in the specialty of physical medicine and rehabilitation. During the 4 years the Office of Vocational Rehabilitation has carried responsibility for the support of training specialists in physical medicine, 255 physicians have received traineeships. On June 30, 1959, 105 were enrolled in residency training, as compared with 4 on June 30, 1955.

Because of the urgent need for rehabilitation counselors in State vocational rehabilitation agencies, rehabilitation centers, and other community rehabilitation programs, a large share of 1959 training funds was awarded for support of rehabilitation counselor training programs in 30 colleges and universities. Nearly \$1.5 million were granted in this field in 1959, covering traineeships to about 500 students.

In April 1959, the participating universities made a study of the employment status of those who had been graduated since the beginning of the program. Of 552 graduates from whom information was available, 60 percent were working in State vocational rehabilitation agencies or community organizations. Twenty-one percent had gone to nonrehabilitation work. Five percent were unemployed and seeking work. Ten percent were continuing graduate study beyond the master's degree. Four percent had left the labor market because of extended illness, military service, or homemaking responsibilities.

Grants were made to 12 universities in 1959 to assist them in expanding and strengthening the training of speech pathologists and audiologists in preparation for work with adults, particularly in the

areas of organic voice problems and hearing loss. Traineeships were provided for 42 graduate students.

TRAINING IN PROSTHETICS

Training courses in the design and application of artificial limbs and other prosthetic devices, and functional bracing, were continued at 2 universities during the year, reaching about 1,000 physicians, physical and occupational therapists, prosthetists, and rehabilitation counselors.

A beginning has been made in the incorporation of prosthetics into the medical school curriculum and into the training of residents in the medical specialty fields of orthopedics and physical medicine. Initial work has been done in a new course on below-the-knee amputations, based on findings of research efforts in that area, and courses on functional bracing of the upper extremities have been held.

Other short-term training courses have been held for rehabilitation personnel for the purpose of raising the level of competence of those already in the field. In 1959, 96 courses were conducted which reached slightly more than 2,500 individuals. These courses were concerned with rehabilitation of the mentally retarded and cerebral palsied, discharged mental hospital patients, laryngectomies, placement of blind persons in competitive employment, vocational adjustment of the rural blind, dental care of the chronically ill or disabled, and social and vocational adjustment of the deaf.

Total of Federal Grants

The total of Federal grants in the public rehabilitation program in 1959 was \$55,928,771.

This included grants to States and territories for basic support of their programs, in the amount of \$45,499,023, about \$4.4 million more than in 1958. This sum was matched by some \$27.8 million in State funds, almost 12 percent more than in 1958.

Federal grants to States for extension and improvement of programs amounted to \$1,030,881, which was matched by \$343,624 in State funds.

Research and demonstration awards during the year amounted to \$4,599,700, of which \$1,472,000 was for first-year support of new projects, and \$3,127,700 for continuation of earlier projects.

Training grants amounted to \$4,799,167 for the period.

Rehabilitation of the Aging Is Aided by Research and New Services as Proportion in Population Increases

For more than a dozen years there has been a steady increase each year in the number of older persons rehabilitated into gainful em-

ployment and in the percentage of the total rehabilitations they represent. This has come out of the growing proportion of middle aged and older persons in our population and the enlarging effort to provide them with specialized services. Fifty million people in this nation are 45 years old or more. A 12th of the population is 65 years old or more, among whom chronic illness is highly prevalent.

As far back as 1945, more than 8,300 persons who were more than 45 years of age were rehabilitated in the public program. This was 17.5 percent of the total rehabilitated in the year. In 1950, almost twice that number and 24 percent of those rehabilitated were in that age bracket. In 1959, an estimated 31 percent of the 80,740 disabled persons rehabilitated into employment were more than 45 years of age. Further increases, both in numbers and percentages, may be expected.

STATES EMPHASIZE PROGRAMS FOR AGING

The substantial advances that have been made have come out of the growing emphasis by State rehabilitation agencies in serving older and disabled workers, and from the spending of more funds for those purposes. There are other factors, such as research and demonstrations of new techniques; the extension and improvement of knowledge of the productive capacity of the elderly; increased facility and skill for meeting the employment needs of the group; and development of special community resources for them.

Twenty-five of the 243 research or demonstration projects that have been approved are concerned with the older disabled worker. The financial assistance provided by the Office for these projects is about \$1.5 million. And, as required by law, the originators and sponsors of these projects have invested approximately \$1 million of their own funds in these activities, demonstrating the concern that other than Federal agencies have for this aspect of the rehabilitation program.

Indication of the emphasis being given to rehabilitation of older persons by State vocational rehabilitation agencies is the increased expenditure for that purpose.

In 1955 the total rehabilitation expenditure of State agencies was \$38.6 million, of which an estimated \$9 million was spent for rehabilitation of disabled persons over 45 years of age.

In 1959 the State agencies spent \$73.3 million, of which an estimated \$20 million was expended on this group.

REHABILITATION AND OASI

Disability provisions in the Social Security amendments of 1954 and 1956 have dramatically called attention to the rehabilitation needs of older people.

Among other things, they required the Bureau of Old-Age and

Survivors Insurance to enter into agreements with State governments to make determinations of disability among applicants for the "freezing" of disability benefit rights during the period of disability, for cash disability insurance benefits, children's disability benefits, and for evaluation of the possibilities for rehabilitation among the applicants. In all States except New York, Washington, North Carolina, and Oklahoma, these determinations are made by the State rehabilitation agencies. Since 1954, these agencies have reviewed more than a million applications for disability payments and freeze benefits.

During 1959, the State agencies made approximately 244,000 initial disability determinations, screened almost 376,000 applicants for their rehabilitation potential, and accepted more than 39,000 for further consideration of possible provision of rehabilitation services.

CONFERENCE ON AGING

Indicative of the greater nationwide concern for the problems of the aging population is passage in 1959 of the White House Conference on Aging Act. It directs the Secretary of Health, Education, and Welfare to plan such a Conference, with cooperation of other Federal departments and of an Advisory Committee, which has been appointed. The Conference dates are set for January 9-13, 1961, subject to the call of the President.

One of the areas to be explored at the Conference is rehabilitation, and the Office is developing its plans for assisting the States in conducting surveys of their older populations, so that reports may be made to the Secretary prior to the Conference, along with recommendations for action.

MENTAL ILLNESS

One of the areas of disability that is getting increased emphasis in the public program of rehabilitation is mental illness.

Better coordination of movement toward a common goal has been effected by working conferences in all nine regions, attended by staff from State mental hospitals and mental health programs, State rehabilitation agencies, and the Office.

Twenty-seven research and demonstration projects directed toward vocational rehabilitation of the mentally ill have been initiated in the 5 years since Public Law 565 was enacted including operation of "Halfway Houses." In large part these projects have been the outgrowth of stimulation provided by these regional conferences. State rehabilitation agencies have exhibited increasing interest in moving beyond established patterns of working with the mentally disturbed. Several States are operating fully equipped rehabilitation facilities on hospital grounds, where patients' skills and aptitudes may be evaluated for training.

MENTALLY RETARDED

In recent years there has been increasing realization that the mentally retarded have considerable potential for employment.

In order to demonstrate this potential, one of the early projects to be initiated was in New York City in 1955, to show that special sheltered workshop training could successfully rehabilitate mentally retarded young adults whose employment had previously been considered impossible.

As usable techniques emerged from the project, immediate steps were taken to make them available over the Nation. By the end of fiscal 1959 there were 14 occupational training centers in 13 States in which mentally retarded youths were being trained in useful occupations.

MANY PHASES OF RETARDATION EXAMINED

Other projects go into the many aspects of rehabilitating the mentally retarded. The possibilities for mentally retarded youths with muscular, orthopedic, and emotional complications to benefit by occupational training have been studied. Employer attitudes toward the mentally retarded are being looked into. Another project will demonstrate and evaluate a cooperative program of academic school work and concurrent work experience in the vocational rehabilitation of mentally retarded high school seniors. Another is investigating the relationships of personal characteristics and educational experience of adult retarded persons discharged from institutions, to their vocational and social adjustment.

Surveys have shown that mental retardation is not increasing among our population. The proportion of young persons with such deficiencies remains about constant. But as the population grows, the total number of persons requiring these specialized services is enlarged, so that special facilities using expanded knowledge are required.

Services to the Blind

Much activity in enlarging and improving services to the blind during 1959 stemmed from the work of an ad hoc advisory committee which met near the beginning of the fiscal year.

A need to focus more directly on specific problems of individual blindness was pointedly described to an assembly of State directors of agencies for the blind, State directors of general rehabilitation agencies, representatives of national and local voluntary groups, and representatives drawn from coordinators in the rehabilitation counselor training program.

The committee gave expression to a growing need for training in-

structors in methods of teaching blind people to travel and to get about on their own, and asked for more emphasis on specifics regarding blindness in the formal training of rehabilitation counselors.

Steps were taken to translate these recommendations into action during 1959. The American Foundation for the Blind joined with the Office in helping to activate a course in placement counseling for the blind at Southern Illinois University. Courses are given 3 times a year, and each will train about 15 persons.

A national conference—also in conjunction with the foundation—was held during the year to lay the groundwork for instruction of blind persons in mobility and such a course will be initiated in the coming year.

The high interest in blindness and the personal problems of the blind is reflected in the larger sums made available for their rehabilitation. Federal grants for agencies for the blind have risen from \$2.4 million in 1954 to more than \$5 million in 1959.

The States have responded by increasing their funds for agencies for the blind from \$1.26 million to more than \$2.6 million in the same period.

Thus the State-Federal funds available to agencies for the blind have more than doubled, and it is estimated that agencies serving both blind and sighted persons spent well over \$2 million on rehabilitation of the blind.

VENDING STANDS

In 1959, as in each of the preceding years since the passage of Public Law 565, vending stand operations for the blind set new records in total numbers of vending stands, of operators, of gross sales, and of net earnings for vending stand operators. Since 1954, gross sales have grown from \$21,972,549 to \$34,752,954; the number of operators from 1,659 to 2,111; the number of stands from 1,599 to 1,982; and the average annual earnings per operator from \$2,193 to \$3,354.

During the year, a cooperative project of the Office with the President's Committee on Employment of the Physically Handicapped, the Veterans' Administration, and the Department of Commerce, explored ways and means of stimulating the establishment of more vending stands on Federal property. As one result, General Services Administration undertook an active program to find more vending stand locations on property under its jurisdiction. This accelerated program was beginning to bear fruit at the end of the year.

Small Business

Small business enterprises have been useful for years as placements for severely handicapped people. Increased interest is being shown

by State agencies in self-employment, small business enterprises, and in finding new self-support opportunities for handicapped people through industrial subcontracting, and the manufacture and sale of products by the homebound. Research and studies of marketing and of appropriate types of businesses are being conducted.

As a measure of growth of small business activities in the rehabilitation program, State expenditures for tools, equipment, or initial stocks and supplies for these endeavors have grown from \$823,000 in 1955 to more than \$2 million in 1959.

A 1959 sample survey of 79 small businesses revealed that more than three-quarters of the operators were in the original enterprises they had started, and that 65 percent had been in business for 6 years or more. Forty-two percent of the operators were more than 45 years of age, and 75 percent had had no wage earnings at the time they applied for rehabilitation services.

Professional Organizations

Further evidence of the impact of the 1954 amendments to the Vocational Rehabilitation Act is in the professional recognition given the field of rehabilitation. This was emphasized in 1959 by the formation of a new division within the American Psychological Association titled "National Council on Psychological Aspects of Disability." Open only to members of the American Psychological Association, it came as an outgrowth of a workshop conducted by the association under Office auspices, devoted to exploration of the role of psychology and psychologists in rehabilitation. This report has just been published by the association under the title of "Psychology and Rehabilitation."

This development is one of a chain of events occurring over the past 5 years, in which there has been acceptance of an active role in the rehabilitation process by professional groups, induced by an awareness of the importance of the rehabilitation program.

The year before, two significant events occurred within professional organizations. The National Rehabilitation Association, recognizing the pivotal role of the rehabilitation counselor in the total rehabilitation process, authorized the development of a "Division of Rehabilitation Counseling." Just prior to this, the American Personnel and Guidance Association also authorized the establishment of a Division of Rehabilitation Counseling.

Cooperation With Other Programs

Ascendancy of the public rehabilitation program to an integrated part of the Nation's resources for health and welfare has been rapid

in the 5 years since the program has been operated under Public Law 565. State vocational rehabilitation agencies, in line with the emphasis that the new legislation placed on their cooperative relationships with other agencies toward rehabilitating disabled persons into employment, have been active in developing such relationships with the public employment services, public assistance agencies, and other public and private organizations.

In recent years, State vocational rehabilitation agencies and State public assistance programs have been able to make more intensive joint efforts toward rehabilitation of disabled parents who receive aid to dependent children, and also of recipients of other types of assistance.

The effectiveness of these efforts increases each year in the number of persons rehabilitated through the State-Federal program who received public assistance at some time during the course of their rehabilitation. There was about a 40-percent increase in this number from fiscal year 1954 through fiscal year 1959—from about 11,000 to about 16,000.

International Activities

The growing recognition of the worth of rehabilitation services among all the peoples of the world, and the leading role of the United States in world rehabilitation affairs is shown in the greater number of world rehabilitation conferences that are being held, and in the number of foreign workers who seek assistance and training in the United States.

The Office prepared or assisted in the programs arranged for 116 foreign vocational rehabilitation workers from 34 countries who were in this country to study or observe the program in 1959. This is almost 50 more than those trained in 1954, and it is particularly significant that in the 5-year period the number of long-term trainees has increased more than 100 percent, from 20 in 1954 to 42 in 1959.

Many Federal, State, and local agencies, as well as voluntary organizations, cooperated in the training of foreign visitors. The United Nations, International Labor Organization, World Health Organization, and, for the first time, the Organization of American States, sponsored grants to some of the trainees; others were financed by voluntary agencies or by personal funds.

A survey of rehabilitation activities in 37 countries was made for the Senate Subcommittee on Reorganization and International Organization.

Table 1.—Number of referrals and cases, by agency, fiscal year 1959

| Agency ¹ | Referrals | | | | Cases | | | | |
|------------------------------|--------------------|-----------------------------|---|--|--|-------------------------|--|---|--|
| | During fiscal year | | | Remain- ing at end of year ² | During fiscal year | | | | Remain- ing at end of year ⁶ |
| | Total | Accepted for services | Not ac- cepted for services ³ | | Total active load (re- ceiving services) | Closed from active load | | | |
| | | | | | | Reha- bilitated | After rehabili- tation plan ini- tiated ⁴ | Before rehabili- tation plan ini- tiated ⁵ | |
| United States, total..... | 373,024 | 121,559 | 128,630 | 122,835 | 280,384 | 80,739 | 9,494 | 19,040 | 171,111 |
| Alabama..... | 7,555 | 3,079 | 614 | 3,862 | 8,515 | 2,363 | 238 | 417 | 5,497 |
| Alaska..... | 578 | 147 | 171 | 260 | 349 | 45 | 16 | 35 | 253 |
| Arizona: | | | | | | | | | |
| General..... | 1,802 | 733 | 620 | 449 | 1,318 | 458 | 72 | 71 | 717 |
| Blind..... | 121 | 62 | 20 | 39 | 158 | 26 | 6 | 8 | 118 |
| Arkansas..... | 7,589 | 2,517 | 3,482 | 1,590 | 5,062 | 2,169 | 234 | 147 | 2,512 |
| California..... | 27,049 | 6,371 | 16,319 | 4,359 | 13,496 | 1,790 | 617 | 2,144 | 8,945 |
| Colorado: | | | | | | | | | |
| General..... | 2,823 | 1,164 | 778 | 881 | 2,404 | 823 | 185 | 83 | 1,313 |
| Blind..... | 397 | 43 | 49 | 305 | 162 | 33 | 4 | 5 | 120 |
| Connecticut: | | | | | | | | | |
| General..... | 2,299 | 1,479 | 318 | 502 | 3,975 | 906 | 273 | 311 | 2,485 |
| Blind..... | 184 | 95 | 55 | 34 | 197 | 72 | 12 | 0 | 113 |
| Delaware: | | | | | | | | | |
| General..... | 1,315 | 582 | 463 | 270 | 1,270 | 500 | 19 | 71 | 680 |
| Blind..... | 50 | 26 | 21 | 3 | 51 | 18 | 10 | 4 | 19 |
| District of Columbia..... | 3,649 | 792 | 2,175 | 682 | 1,731 | 324 | 70 | 140 | 1,197 |
| Florida: | | | | | | | | | |
| General..... | 14,284 | 4,306 | 5,619 | 4,359 | 8,558 | 2,760 | 370 | 517 | 4,911 |
| Blind..... | 3,987 | 405 | 2,296 | 1,286 | 1,041 | 271 | 80 | 41 | 649 |
| Georgia..... | 20,888 | 6,309 | 6,129 | 8,450 | 12,351 | 5,628 | 312 | 473 | 5,938 |
| Guam..... | 222 | 55 | 33 | 134 | 55 | 0 | 0 | 5 | 50 |
| Hawaii: | | | | | | | | | |
| General..... | 1,156 | 256 | 463 | 437 | 596 | 189 | 37 | 10 | 360 |
| Blind..... | 27 | 12 | 5 | 10 | 78 | 16 | 8 | 0 | 54 |
| Idaho: | | | | | | | | | |
| General..... | 1,855 | 424 | 752 | 679 | 872 | 256 | 29 | 22 | 565 |
| Blind..... | 39 | 23 | 14 | 2 | 49 | 13 | 4 | 1 | 31 |
| Illinois..... | 13,703 | 6,090 | 4,245 | 3,368 | 13,779 | 3,793 | 256 | 1,290 | 8,440 |
| Indiana: | | | | | | | | | |
| General..... | 2,656 | 1,258 | 652 | 746 | 3,878 | 1,187 | 109 | 177 | 2,405 |
| Blind..... | 193 | 74 | 53 | 66 | 246 | 45 | 30 | 27 | 144 |
| Iowa: | | | | | | | | | |
| General..... | 5,598 | 1,546 | 1,948 | 2,104 | 3,792 | 1,176 | 169 | 235 | 2,212 |
| Blind..... | 439 | 52 | 236 | 151 | 151 | 26 | 10 | 16 | 99 |
| Kansas: | | | | | | | | | |
| General..... | 3,926 | 1,336 | 1,247 | 1,343 | 2,839 | 904 | 104 | 193 | 1,638 |
| Blind..... | 353 | 104 | 87 | 162 | 249 | 66 | 8 | 17 | 158 |
| Kentucky..... | 6,829 | 1,883 | 2,570 | 2,376 | 3,954 | 1,240 | 111 | 339 | 2,264 |
| Louisiana: | | | | | | | | | |
| General..... | 5,006 | 2,782 | 1,270 | 954 | 7,239 | 1,771 | 189 | 572 | 4,707 |
| Blind..... | 798 | 175 | 145 | 478 | 582 | 110 | 6 | 10 | 456 |
| Maine: | | | | | | | | | |
| General..... | 1,840 | 537 | 637 | 666 | 1,311 | 333 | 61 | 130 | 787 |
| Blind..... | 169 | 72 | 66 | 31 | 161 | 46 | 9 | 31 | 75 |
| Maryland..... | 5,189 | 2,329 | 1,209 | 1,651 | 5,397 | 1,342 | 93 | 420 | 3,542 |
| Massachusetts: | | | | | | | | | |
| General..... | 5,811 | 2,048 | 1,335 | 2,428 | 4,562 | 1,359 | 125 | 213 | 2,865 |
| Blind..... | 360 | 120 | 29 | 211 | 362 | 61 | 16 | 11 | 274 |
| Michigan: | | | | | | | | | |
| General..... | 9,625 | 3,680 | 2,359 | 3,586 | 9,520 | 2,644 | 435 | 226 | 6,215 |
| Blind..... | 385 | 207 | 102 | 76 | 446 | 83 | 39 | 58 | 266 |
| Minnesota: | | | | | | | | | |
| General..... | 6,128 | 1,495 | 1,874 | 2,759 | 4,791 | 1,173 | 180 | 128 | 3,310 |
| Blind..... | 850 | 120 | 390 | 340 | 426 | 82 | 22 | 24 | 298 |
| Mississippi: | | | | | | | | | |
| General..... | 3,510 | 1,807 | 779 | 924 | 3,240 | 1,250 | 70 | 150 | 1,770 |
| Blind..... | 856 | 350 | 352 | 154 | 908 | 288 | 29 | 20 | 571 |
| Missouri: | | | | | | | | | |
| General..... | 7,397 | 2,177 | 2,664 | 2,556 | 4,477 | 1,511 | 197 | 256 | 2,513 |
| Blind..... | 889 | 195 | 403 | 291 | 570 | 163 | 19 | 24 | 364 |
| Montana: | | | | | | | | | |
| General..... | 1,916 | 577 | 693 | 646 | 1,345 | 404 | 10 | 34 | 897 |
| Blind..... | 384 | 16 | 295 | 73 | 62 | 19 | 2 | 4 | 37 |
| Nebraska: | | | | | | | | | |
| General..... | 1,644 | 699 | 333 | 612 | 2,278 | 623 | 81 | 96 | 1,478 |
| Blind..... | 208 | 74 | 89 | 45 | 162 | 62 | 4 | 1 | 95 |

Table 1.—Number of referrals and cases, by agency, fiscal year 1959—Con.

| Agency ¹ | Referrals | | | | Cases | | | | |
|---------------------|--------------------|-----------------------------|---|--|--|-------------------------|--|---|--|
| | During fiscal year | | | Remain- ing at end of year ³ | During fiscal year | | | | Remain- ing at end of year ⁶ |
| | Total | Accepted for services | Not ac- cepted for services ² | | Total active load (re- ceiving services) | Closed from active load | | | |
| | | | | | | Reha- bilitated | After rehabili- tation plan ini- tiated ⁴ | Before rehabili- tation plan ini- tiated ⁵ | |
| Nevada: | | | | | | | | | |
| General..... | 1,087 | 135 | 802 | 150 | 267 | 89 | 22 | 9 | 147 |
| Blind..... | 42 | 17 | 11 | 14 | 46 | 11 | 1 | 3 | 31 |
| New Hampshire: | | | | | | | | | |
| General..... | 964 | 340 | 83 | 541 | 806 | 170 | 80 | 28 | 528 |
| Blind..... | 38 | 17 | 13 | 8 | 74 | 10 | 6 | 4 | 54 |
| New Jersey: | | | | | | | | | |
| General..... | 6,118 | 2,102 | 2,416 | 1,600 | 4,501 | 1,316 | 212 | 457 | 2,516 |
| Blind..... | 988 | 221 | 342 | 425 | 554 | 200 | 33 | 24 | 297 |
| New Mexico: | | | | | | | | | |
| General..... | 1,365 | 272 | 614 | 479 | 542 | 275 | 12 | 10 | 245 |
| Blind..... | 218 | 38 | 65 | 115 | 96 | 30 | 6 | 3 | 57 |
| New York: | | | | | | | | | |
| General..... | 26,151 | 8,688 | 8,364 | 9,099 | 16,975 | 5,278 | 594 | 995 | 10,108 |
| Blind..... | 1,067 | 432 | 216 | 419 | 859 | 226 | 53 | 69 | 511 |
| North Carolina: | | | | | | | | | |
| General..... | 11,186 | 5,811 | 3,907 | 1,468 | 13,073 | 4,369 | 451 | 623 | 7,630 |
| Blind..... | 1,327 | 530 | 506 | 291 | 1,538 | 397 | 40 | 136 | 965 |
| North Dakota..... | 1,742 | 439 | 493 | 810 | 1,083 | 309 | 24 | 34 | 716 |
| Ohio: | | | | | | | | | |
| General..... | 6,580 | 2,217 | 1,565 | 2,798 | 4,779 | 1,508 | 135 | 187 | 2,949 |
| Blind..... | 545 | 253 | 134 | 158 | 767 | 130 | 39 | 50 | 548 |
| Oklahoma..... | 4,609 | 2,841 | 922 | 846 | 7,846 | 1,560 | 171 | 926 | 5,189 |
| Oregon: | | | | | | | | | |
| General..... | 6,936 | 1,057 | 3,197 | 2,682 | 2,672 | 629 | 113 | 230 | 1,700 |
| Blind..... | 233 | 51 | 71 | 111 | 158 | 39 | 4 | 6 | 109 |
| Pennsylvania: | | | | | | | | | |
| General..... | 24,827 | 9,062 | 7,409 | 8,356 | 20,277 | 5,878 | 1,047 | 1,593 | 11,759 |
| Blind..... | 2,279 | 445 | 1,216 | 618 | 1,103 | 239 | 52 | 92 | 720 |
| Puerto Rico..... | 7,394 | 1,723 | 1,436 | 4,235 | 4,472 | 970 | 59 | 267 | 3,176 |
| Rhode Island: | | | | | | | | | |
| General..... | 1,918 | 858 | 433 | 627 | 1,992 | 633 | 81 | 6 | 1,272 |
| Blind..... | 103 | 75 | 6 | 22 | 233 | 44 | 18 | 13 | 158 |
| South Carolina: | | | | | | | | | |
| General..... | 5,918 | 1,931 | 2,384 | 1,603 | 4,916 | 1,502 | 107 | 254 | 3,053 |
| Blind..... | 349 | 136 | 150 | 63 | 297 | 94 | 4 | 18 | 181 |
| South Dakota: | | | | | | | | | |
| General..... | 1,197 | 353 | 185 | 659 | 965 | 237 | 20 | 52 | 656 |
| Blind..... | 324 | 38 | 159 | 127 | 103 | 22 | 4 | 2 | 75 |
| Tennessee: | | | | | | | | | |
| General..... | 11,465 | 3,414 | 4,029 | 4,022 | 6,766 | 2,302 | 203 | 306 | 3,955 |
| Blind..... | 1,300 | 309 | 460 | 531 | 839 | 245 | 16 | 42 | 536 |
| Texas: | | | | | | | | | |
| General..... | 11,881 | 3,489 | 2,875 | 5,517 | 10,259 | 2,219 | 149 | 683 | 7,208 |
| Blind..... | 834 | 341 | 216 | 277 | 796 | 354 | 20 | 15 | 407 |
| Utah..... | 1,621 | 607 | 263 | 751 | 1,520 | 432 | 43 | 20 | 1,025 |
| Vermont: | | | | | | | | | |
| General..... | 1,289 | 340 | 443 | 506 | 856 | 210 | 73 | 65 | 508 |
| Blind..... | 61 | 28 | 21 | 12 | 76 | 19 | 9 | 5 | 43 |
| Virginia: | | | | | | | | | |
| General..... | 16,416 | 4,089 | 8,153 | 4,174 | 8,458 | 3,072 | 156 | 775 | 4,455 |
| Blind..... | 500 | 139 | 154 | 207 | 284 | 95 | 22 | 8 | 159 |
| Virgin islands..... | 137 | 53 | 6 | 78 | 84 | 23 | 2 | 6 | 53 |
| Washington: | | | | | | | | | |
| General..... | 4,043 | 1,634 | 1,316 | 1,093 | 4,103 | 960 | 171 | 447 | 2,525 |
| Blind..... | 211 | 72 | 88 | 51 | 196 | 50 | 7 | 11 | 128 |
| West Virginia..... | 15,460 | 4,401 | 4,112 | 6,947 | 10,388 | 2,665 | 136 | 1,279 | 6,308 |
| Wisconsin: | | | | | | | | | |
| General..... | 6,821 | 1,585 | 2,616 | 2,620 | 5,079 | 1,276 | 92 | 61 | 3,650 |
| Blind..... | 157 | 108 | 26 | 23 | 230 | 67 | 10 | 11 | 142 |
| Wyoming..... | 792 | 185 | 295 | 312 | 441 | 164 | 17 | 8 | 252 |

¹ In States with 2 agencies, the State division of vocational rehabilitation is designated as "general," and the agency under the State commission or other agency for the blind is designated as "blind."

² Services declined, services not needed, individual not eligible, individual needing services other than vocational rehabilitation, referred to other agencies, migratory shifting of the individual, etc.

³ Eligibility for rehabilitation not yet determined.

⁴ Closed after rehabilitation plan was initiated; received rehabilitation service but never reached the point of employment because of personal factors, illness, aggravated disability, etc.

⁵ Closed prior to initiation of rehabilitation plan because of indifference of individual, increase in degree of disability, loss of contact, etc.

⁶ In process of rehabilitation on June 30, 1959.

Table 2.—*Vocational rehabilitation grants, 1959, State divisions of vocational rehabilitation*

| State or Territory | Support grants | Extension and improvement grants | Total |
|---------------------------|----------------|----------------------------------|----------------|
| Total..... | \$40, 545, 007 | \$949, 466 | \$41, 494, 473 |
| Alabama..... | 1, 531, 192 | 1, 875 | 1, 533, 067 |
| Alaska..... | 104, 771 | 5, 000 | 109, 771 |
| Arizona..... | 335, 352 | 9, 687 | 345, 039 |
| Arkansas..... | 1, 177, 621 | 15, 076 | 1, 192, 697 |
| California..... | 2, 628, 598 | 118, 712 | 2, 747, 310 |
| Colorado..... | 261, 702 | 13, 700 | 275, 402 |
| Connecticut..... | 312, 088 | 15, 363 | 327, 451 |
| Delaware..... | 141, 234 | ----- | 141, 234 |
| Florida..... | 1, 303, 435 | ----- | 1, 303, 435 |
| Georgia..... | 2, 222, 889 | 30, 007 | 2, 252, 896 |
| Hawaii..... | 146, 128 | 3, 000 | 149, 128 |
| Idaho..... | 159, 392 | ----- | 159, 392 |
| Illinois..... | 1, 743, 698 | 80, 000 | 1, 823, 698 |
| Indiana..... | 463, 632 | 23, 740 | 492, 372 |
| Iowa..... | 670, 606 | 21, 619 | 692, 225 |
| Kansas..... | 409, 541 | 9, 565 | 419, 106 |
| Kentucky..... | 457, 750 | 25, 923 | 483, 673 |
| Louisiana..... | 1, 008, 063 | ----- | 1, 008, 063 |
| Maine..... | 230, 487 | 8, 041 | 238, 528 |
| Maryland..... | 526, 783 | ----- | 526, 783 |
| Massachusetts..... | 668, 207 | 33, 192 | 701, 399 |
| Michigan..... | 1, 174, 858 | 66, 536 | 1, 241, 394 |
| Minnesota..... | 815, 797 | 22, 515 | 838, 312 |
| Mississippi..... | 528, 291 | ----- | 528, 291 |
| Missouri..... | 658, 809 | 13, 891 | 672, 700 |
| Montana..... | 164, 572 | 5, 679 | 170, 251 |
| Nebraska..... | 285, 808 | 8, 679 | 294, 487 |
| Nevada..... | 37, 311 | ----- | 37, 311 |
| New Hampshire..... | 90, 794 | 3, 600 | 94, 394 |
| New Jersey..... | 847, 847 | 35, 169 | 883, 016 |
| New Mexico..... | 112, 793 | ----- | 112, 793 |
| New York..... | 2, 942, 975 | 125, 178 | 3, 068, 153 |
| North Carolina..... | 1, 388, 957 | 2, 738 | 1, 391, 695 |
| North Dakota..... | 287, 058 | 5, 491 | 292, 549 |
| Ohio..... | 632, 626 | 24, 967 | 657, 593 |
| Oklahoma..... | 1, 047, 343 | 19, 416 | 1, 066, 759 |
| Oregon..... | 539, 009 | 12, 445 | 551, 454 |
| Pennsylvania..... | 3, 158, 663 | 66, 015 | 3, 224, 678 |
| Rhode Island..... | 215, 654 | 7, 350 | 223, 004 |
| South Carolina..... | 664, 029 | 9, 000 | 673, 029 |
| South Dakota..... | 196, 245 | 4, 786 | 201, 031 |
| Tennessee..... | 1, 414, 268 | ----- | 1, 414, 268 |
| Texas..... | 1, 361, 629 | 26, 745 | 1, 388, 374 |
| Utah..... | 213, 154 | 7, 256 | 220, 410 |
| Vermont..... | 153, 330 | 5, 000 | 158, 330 |
| Virginia..... | 1, 091, 699 | ----- | 1, 091, 699 |
| Washington..... | 711, 072 | 15, 160 | 726, 232 |
| West Virginia..... | 1, 134, 578 | 16, 850 | 1, 151, 428 |
| Wisconsin..... | 1, 194, 453 | 25, 500 | 1, 219, 953 |
| Wyoming..... | 109, 989 | ----- | 109, 989 |
| Guam..... | 20, 565 | ----- | 20, 565 |
| Puerto Rico..... | 595, 910 | ----- | 595, 910 |
| Virgin Islands..... | 15, 778 | ----- | 15, 774 |
| District of Columbia..... | 235, 974 | ----- | 235, 978 |

Table 3.—*Vocational rehabilitation grants, 1959, State commissions or agencies for the blind*

| State or Territory | Support grants | Extension and improvement grants | Total |
|---------------------|----------------|----------------------------------|-------------|
| Total..... | \$4,954,016 | \$81,415 | \$5,035,431 |
| Arizona..... | 57,320 | ----- | 57,920 |
| Colorado..... | 71,996 | 566 | 72,562 |
| Connecticut..... | 37,880 | 3,840 | 41,720 |
| Delaware..... | 36,963 | 5,000 | 41,963 |
| Florida..... | 427,000 | ----- | 427,000 |
| Hawaii..... | 27,863 | 2,000 | 29,863 |
| Idaho..... | 14,621 | ----- | 14,621 |
| Indiana..... | 57,033 | ----- | 57,033 |
| Iowa..... | 61,774 | 2,248 | 64,022 |
| Kansas..... | 125,785 | 4,189 | 129,974 |
| Louisiana..... | 154,819 | ----- | 154,819 |
| Maine..... | 68,647 | ----- | 68,647 |
| Massachusetts..... | 155,330 | 4,378 | 159,708 |
| Michigan..... | 114,955 | ----- | 114,955 |
| Minnesota..... | 123,865 | 5,749 | 129,614 |
| Mississippi..... | 266,898 | ----- | 266,898 |
| Missouri..... | 216,357 | ----- | 216,357 |
| Montana..... | 47,158 | ----- | 47,158 |
| Nebraska..... | 77,242 | 3,702 | 80,944 |
| Nevada..... | 4,715 | 5,000 | 9,715 |
| New Hampshire..... | 31,200 | ----- | 31,200 |
| New Jersey..... | 192,136 | 1,665 | 193,801 |
| New Mexico..... | 48,707 | ----- | 48,707 |
| New York..... | 392,302 | 5,250 | 397,552 |
| North Carolina..... | 443,421 | ----- | 443,421 |
| Ohio..... | 262,629 | 16,721 | 279,350 |
| Oregon..... | 77,960 | ----- | 77,960 |
| Pennsylvania..... | 378,862 | ----- | 378,862 |
| Rhode Island..... | 45,164 | ----- | 45,164 |
| South Carolina..... | 58,424 | ----- | 58,424 |
| South Dakota..... | 52,500 | 1,200 | 53,700 |
| Tennessee..... | 265,812 | ----- | 265,812 |
| Texas..... | 288,846 | 16,907 | 305,753 |
| Vermont..... | 30,786 | ----- | 30,786 |
| Virginia..... | 79,235 | ----- | 79,235 |
| Washington..... | 65,907 | ----- | 65,907 |
| Wisconsin..... | 91,304 | 3,000 | 94,304 |



Saint Elizabeths Hospital

THE CARE OF THE PATIENTS in line with modern and progressive standards has continued. During the year three of the key medical personnel, namely, the Assistant Superintendent, one of the Clinical Directors, and one of the Chiefs of Service retired after 30 years' service to accept more remunerative positions with State governments. Institutional psychiatry is becoming a more highly competitive field, with the States offering more than the Federal Government; the result has been a lack of success in recruiting to fill the vacant positions. Indeed, there are now 10 vacancies for staff physician. Had it not been for the devotion of the medical staff, the ward personnel, and the other employees of the hospital, it would have been impossible to maintain anywhere nearly adequate care of the patients. As it is, the general health of the patients has continued good and a reasonable degree of success has been achieved in maintaining the high standards of care to which the hospital is dedicated.

The so-called tranquilizing drugs have continued to prove their usefulness as palliatives rather than as cures, but their use has resulted in a steadily increasing number of patients who have been able to leave the hospital, at least for a time.

Further progress can be noted in the development of so-called open wards and in patient self-government. Every effort is made to achieve an atmosphere of permissiveness and friendly interest, and although some patients occasionally take advantage of this the results on the whole have been beneficial. The load of aged and infirm patients continues to increase, thus throwing additional responsibilities on an already overworked staff and ward personnel. Electroshock has been used sparingly, and no lobotomies have been performed.

During the year, 1,607 patients were admitted and 1,513 discharged. Of the latter, 1,034 were released to the community or to other insti-

tutions, that is, 64.3 percent of the admissions. It appears that some stability of discharges and admissions is being achieved. During the 3-year period just closed as compared with the preceding 3-year period, there was an increase of 18.9 percent of admissions and an increase of 22.4 percent of discharges. During the year the patients on the rolls increased from 7,466 to 7,511, whereas those in the hospital decreased by 65, that is, from an average of 6,965 to 6,899. On the other hand, the readmission rate, that is, the rate of patients admitted who have previously been cared for in this or similar hospitals, has continued to rise, amounting to 31.3 percent for the year just closed. Of the admissions, 94, or 5.8 percent, were under 21 years of age.

The writ of habeas corpus, that "palladium of our liberties," continues to be utilized by a certain segment of our patients. During the year the hospital was ordered to show cause in 72 cases and to produce the patient under a writ of habeas corpus in 61 cases or a total of 133, by far the largest number yet. That a considerable number of these proceedings was frivolous is suggested by the fact that only three patients were discharged on habeas corpus. This right of the patient is duly recognized despite the fact that an inordinate amount of the physicians' time is demanded in preparing answers to writs and to testifying in court.

The courts are showing an increasing amount of interest in the mental state of persons charged with crime and the admission rate in this group continues to rise—154 as compared with 145 last year. Of these, 41 as against 21 last year were admitted after acquittal by reason of insanity. Twelve men were admitted under the so-called Miller (sexual psychopath) Act. It has been necessary during this year to maintain a waiting list for prisoner patients, much to the regret of the hospital. Fortunately, the courts have in general been quite understanding of the difficulties of space under which the hospital works. It is expected that the new maximum security building, the John Howard Pavilion, will be ready for use early in the fall and from that time on a waiting list should be unnecessary. Various other agencies of government, notably the Health Department, the Public Welfare Department, and the Rehabilitation Division of the District, and the Veterans Administration have all been most cooperative. Further plans for even closer cooperation are being worked out.

As in previous years the hospital had the pleasure and the inspiration of being visited by numerous persons from other countries, as well as by many in the United States. Indeed, no less than 23 foreign countries were represented among our visitors this year. An active program in education has been carried on and even further developed during the year, not only in the field of psychiatry but in those of psychology, social work, general medicine, surgery, pathology, occupational therapy, nursing, and clinical pastoral work. The three local

medical schools, as usual, have utilized the facilities of the hospital for the training of their students, and inservice training in a number of fields has been carried on. The hospital continues to be the only public mental hospital in the country which is approved for rotating internship. During the year full accreditation was received from the Joint Commission on Accreditation of Hospitals.

Mention was made in last year's report of the Joint National Institute of Mental Health-Saint Elizabeths Hospital Research Project. This project is now well under way, and the enthusiasm of the participants, both from the Institute and the hospital, continues unabated. A number of significant projects, both clinical and laboratory, are being carried on.

Division of Clinical Services

CLINICAL BRANCHES

The general care and treatment of the patients is carried on by three clinical branches, each of them subdivided into services. A Medical and Surgical Branch is charged with the acute medical and surgical treatment of all patients and emergency attention to employees. Shortage of professional staff continues to be the single most pressing problem in operating the hospital. The present standards of salaries are insufficient to compete with what is now being offered by many of the States, so that recruiting has become almost impossible. The increased alertness of the patients brought about by the so-called tranquilizers has laid much greater responsibility upon the ward and medical personnel with the result that the shortages which existed have become even more noticeable and pressing. General crowding of the hospital in spite of the slight drop in the population is considerable, averaging about $7\frac{1}{2}$ percent, but there are areas in which the crowding is considerably greater and in some areas the patients are cared for under substandard circumstances. The program of replacement is underway but is inevitably slow. All the buildings erected since 1944 have been replacements rather than additions.

During the year, through agreement with the District of Columbia Health Department, arrangements were made for a representative of the Health Department to be present at the hospital during the week to grant permits for the admission of voluntary patients. This has removed one of the obstacles to the use of the voluntary admission law, and it has been much appreciated by the families and the patients themselves. The general therapeutic program has continued on the wards. Open wards, greater freedom of patients, and more self-government have been developed. Group therapy has been much used, together with a moderate amount of individual psychotherapy to the extent permitted by the time available to the physicians. In

addition to the recreational therapy facilities offered by the hospital, various volunteer groups have been most faithful in visiting the wards and providing entertainment for the patients. The increasing co-operation with the various community and official agencies has already been noted.

MEDICAL AND SURGICAL BRANCH

The work of this Branch continues to be unusually varied and of high efficiency. The Medical and Surgical Building itself, now over 30 years old, is approaching obsolescence, and a study is being planned looking toward replacement. There were 1,986 admissions to this Branch during the year and 88,812 hospital days, together with 56,476 clinical visits. The efficiency of the pharmacy has been greatly improved and the personnel expanded. The same may be said of the dental division. During the year the hospital has been very fortunate in obtaining for the Medical and Surgical Branch, as well as for the laboratory, a very considerable amount of surplus property in excellent condition. Work is underway looking to an exploration of a more effective employee health program and also to expanding the research program. With the increasing use in medicine of radioisotopes, a radiation officer has been appointed.

NURSING BRANCH

In spite of the general shortage of graduate nurses and indeed a general shortage of ward personnel, the Branch has done excellent work in the care of patients. An active program of inservice training is carried on, and 14 schools of nursing affiliate with the hospital. In addition, a number of Navy Hospital corpsmen are trained by the Nursing Branch. It is a matter of regret that space does not permit elaboration of the fine work done by this important, nay essential, Branch.

PSYCHOTHERAPY BRANCH

This Branch provides services to certain selected patients in the field of individual and group psychotherapy, psychodrama, and dance and art therapy. It is of interest to note that the coming year will mark 20 years of psychodrama at Saint Elizabeths Hospital. The hospital was the first public mental hospital in the United States to take up this very important and significant form of group psychotherapy. The psychodramatist has been in considerable demand in the field of public relations and of training various groups outside of the hospital.

PSYCHOLOGY BRANCH

Four projects are underway. During the year one doctor's thesis and two master's theses were undertaken by students in the Branch. A very active teaching and research program is carried on. An

increase of 10 percent in the tests given to patients was noted during the year.

RECREATIONAL THERAPY BRANCH

This Branch conducts a very active program, providing ward parties and entertainments both on the wards and in the Red Cross Building and Hitchcock Hall. The Commanding Officer of the Bolling Air Force Base has continued the arrangement to have patients taken to the swimming pool during the summer season several days a week. This has been greatly appreciated by the patients, particularly as the hospital does not yet have a swimming pool. Many dances have been arranged for the patients and a chorus as well as choirs have been conducted by a member of the staff of the Branch. Bands, orchestras, and sports have likewise been arranged.

VOLUNTEER SERVICES BRANCH

This Branch accomplishes much for the benefit of the hospital. During the year, 188 volunteers contributed well over 12,000 hours of service, including groups with an average of individuals over 500 per month. In addition, many community organizations have been brought into contact with the hospital and many gifts have resulted. The number of groups is too large to permit naming them all. They have been of various kinds: church, community service, and the American Red Cross. They have been most generous, and the hospital is deeply appreciative of what they have done.

OCCUPATIONAL THERAPY BRANCH

To this Branch, too, the services of volunteers have been invaluable, particularly in connection with the educational activities in the rehabilitation program. No less than 243 patients have benefited by the educational activities. During the year, six affiliate students were trained in the Branch.

SOCIAL SERVICE BRANCH

This Branch has been most helpful in the rehabilitation of patients and their return to the community. Nine hundred and ninety-seven patients were served by the Branch during the year. Close relations have been maintained with the Veterans Administration, the Office of Vocational Rehabilitation, and the District of Columbia Village. It is of some interest to note that since 1952, 116 patients have been sent from the hospital to the District of Columbia Village, of whom only 17 have been returned to the hospital. Fifty-five patients were referred to public assistance. One of the great needs of the District of Columbia is a greater number of available boarding homes, particularly for the older patients. The Branch also has had general supervision of the school program under which two full-time instructors

from the Board of Education have been providing instruction for the teenage patients.

CHAPLAIN SERVICES BRANCH

This Branch under Catholic, Protestant, and Jewish chaplains carries out religious ministry to the patients, both in the chapel and on the wards. New patients are visited, and such other patients as request the services of the chaplains. Training is carried out both for Catholic and Protestant clergy and theological students. The various community organizations have been most helpful to the chaplains, as has the Volunteer Branch. Through a gift of Mrs. Howard Chandler Robbins, three fellowships in advanced clinical pastoral training for Protestant clergy were established. The director of Protestant chaplain activities served as the Chairman of the Mental Health Week Committee. During this week probably at least 8,000 persons visited the hospital, and much was done to promote community understanding of mental illness.

MEDICAL RECORDS BRANCH

This Branch is continuing its development, and steps are underway to reorganize the filing system for hospital records.

LIBRARY SERVICES

The Medical Library provides library service for the medical staff. A large part of the time is devoted to interlibrary loans, the checking of references, and the indexing of the 215 journals to which the hospital subscribes. The total number of books is 19,478, with the addition of 18,000 pamphlets. It is a matter of keen regret that most of the libraries with which the hospital deals, even though they too are public organizations, are curtailing their services, increasing the amount of "redtape" involved, and making it more difficult to use them for interlibrary loans. The Veterans Administration is a notable exception, and particular thanks are due to them for their very generous and helpful cooperation. The Medical Library is badly crowded, and it is the hope of the hospital that the proposed wings of the Administration Building which will add very considerable library space may be authorized in the near future. The Patients' Circulating Library now has over 61,000 volumes and circulated approximately 2,800 books to the various wards in addition to making books available to the many patients who visit the Circulating Library. Many classes, such as those in typewriting, stenography, and French, are carried on. During the year, through the helpful cooperation of the Department, a considerable modernization of the bookbinding activities was brought about.

LABORATORY BRANCH

This extremely active and efficient Branch has been increasing its activities substantially. Tests performed were up 13 percent over last year. The autopsy rate was 46 percent; that is, 218 autopsies were performed. Much new equipment, most of it surplus property, has been installed.

Division of Administration

As last year, space does not permit mention of the various activities of this Division, such as financial, personnel, construction, grounds, and laundry, which are carried on efficiently. Substantial progress is still being made in developing new methods of property control and of billing. The Division has been very active in securing surplus property, which has been greatly appreciated and which has promoted the efficiency of the Hospital. The grounds have been maintained in excellent condition and several contracts, such as that for the construction of the maximum security building, have been supervised.

A methods unit has been organized, and two management analysts have been employed.

Needs of the Hospital

The need of new buildings for replacement and also for reduction of the overcrowding continues to be pressing. Nor should it be overlooked that the administrative activities have multiplied greatly with the increase of Government "redtape" and that wings for the enlargement of the Administration Building are very seriously needed. Most pressing of all, in addition to more personnel, is the revision of the salary scale, particularly for professional people. The States have marched ahead of the Federal Government in this field for several years, with the result that the Federal Government is far behind the procession in a competitive way. This is especially true of psychiatrists and pathologists. Proposals are being made to the Civil Service Commission, and it is hoped that some remedy may be found for the very serious shortages which now exist.

Table 1.—*Movement of patient population, fiscal year 1959*

| | Total | Male | | | Female | | |
|--|-------|-------|---------|-------|--------|---------|-------|
| | | White | Colored | Total | White | Colored | Total |
| Total number under care and treatment, fiscal year 1959..... | 9,070 | 2,557 | 1,928 | 4,485 | 2,675 | 1,910 | 4,585 |
| Remaining on rolls, June 30, 1958..... | 7,463 | 2,128 | 1,549 | 3,677 | 2,185 | 1,601 | 3,786 |
| Admitted during year..... | 1,607 | 429 | 379 | 808 | 490 | 309 | 799 |
| Total discharged or died..... | 1,513 | 442 | 334 | 776 | 470 | 267 | 737 |
| Discharged..... | 1,034 | 298 | 251 | 549 | 293 | 192 | 485 |
| Discharged as— | | | | | | | |
| Recovered..... | 44 | 13 | 13 | 26 | 12 | 6 | 18 |
| Social recovery..... | 380 | 72 | 77 | 149 | 111 | 129 | 240 |
| Improved..... | 439 | 145 | 122 | 267 | 129 | 43 | 172 |
| Unimproved..... | 148 | 61 | 32 | 93 | 42 | 13 | 55 |
| Worse..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| No mental disorder..... | 14 | 7 | 7 | 14 | 0 | 0 | 0 |
| Unknown..... | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Died..... | 479 | 144 | 83 | 227 | 177 | 75 | 252 |
| Remaining on rolls, June 30, 1959..... | 7,557 | 2,115 | 1,594 | 3,709 | 2,205 | 1,643 | 3,848 |
| Change in color and sex..... | 0 | -1 | +5 | +4 | 0 | -4 | -4 |
| On visit or elopement..... | 577 | 91 | 85 | 176 | 198 | 203 | 401 |
| In hospital, June 30, 1959..... | 6,980 | 2,023 | 1,514 | 3,537 | 2,007 | 1,436 | 3,443 |

Table 2.—Consolidated statement of movement of patients, by classification, fiscal year 1959

| | Reimbursable patients | | | | | | | Nonreimbursable patients | | | | | | | | | | | | | | | | | | | |
|---|-----------------------|--------------------------|----------------|----------------|---------------------|--------------------------|-------|--------------------------|-------|-----------------------------------|--|--------------------------|-----------------|------------|-------------|-------------------|----------------------|-----------------|-----------------|--------------|------|----------------|---------------------------------|--------------------|----------------|-----------------------|----------------|
| | Subtotal | Bureau of Indian Affairs | D.C. residents | D.C. voluntary | U.S. Soldiers' Home | Veterans' Administration | Other | Subtotal | Army | Bureau of Employees' Compensation | Immigration and Naturalization Service | Bureau of National Homes | Canadian Insane | Canal Zone | Coast Guard | D.C. nonresidents | Federal reservations | Foreign Service | Interned aliens | Marine Corps | Navy | D.C. prisoners | D.C. prisoners (Sex psychopath) | Military prisoners | U.S. prisoners | Public Health Service | Virgin Islands |
| On rolls, June 30, 1958..... | 7,463 | 6,045 | 64 | 5,347 | 207 | 44 | 380 | 3 | 1,418 | 215 | 1 | 3 | 56 | 16 | 15 | 226 | 19 | 9 | 4 | 21 | 80 | 406 | 40 | 27 | 100 | 39 | 139 |
| Admitted to June 30, 1959..... | 1,607 | 1,364 | 0 | 1,144 | 189 | 24 | 4 | 3 | 243 | 0 | 1 | 0 | 1 | 0 | 0 | 3 | 43 | 8 | 0 | 0 | 0 | 154 | 12 | 0 | 11 | 2 | 8 |
| Separate1, fiscal year 1953..... | 1,513 | 1,041 | 3 | 800 | 164 | 17 | 53 | 4 | 472 | 10 | 0 | 0 | 2 | 0 | 0 | 261 | 35 | 6 | 0 | 3 | 6 | 108 | 2 | 3 | 22 | 5 | 9 |
| Deaths..... | 479 | 429 | 3 | 394 | 9 | 8 | 15 | 0 | 50 | 10 | 0 | 0 | 1 | 0 | 0 | 8 | 3 | 0 | 0 | 3 | 4 | 9 | 0 | 3 | 5 | 2 | 2 |
| Discharges..... | 1,034 | 612 | 0 | 406 | 155 | 9 | 38 | 4 | 422 | 0 | 0 | 0 | 1 | 0 | 0 | 253 | 32 | 6 | 0 | 0 | 2 | 99 | 2 | 0 | 17 | 3 | 7 |
| On rolls, June 30, 1959..... | 7,557 | 6,388 | 61 | 5,691 | 232 | 51 | 331 | 2 | 1,189 | 205 | 2 | 3 | 55 | 16 | 15 | -32 | 27 | 11 | 4 | 18 | 74 | 452 | 50 | 24 | 88 | 37 | 138 |
| Changes in classification..... | 0 | -260 | 0 | -321 | 0 | 0 | +64 | 0 | +260 | 0 | 0 | 0 | 0 | 0 | 0 | +273 | -4 | +1 | 0 | 0 | 0 | -5 | -1 | 0 | -4 | 0 | 0 |
| Adjusted on rolls, June 30, 1959..... | 7,557 | 6,108 | 61 | 5,370 | 229 | 51 | 395 | 2 | 1,449 | 205 | 2 | 3 | 55 | 16 | 15 | 241 | 23 | 12 | 4 | 18 | 74 | 447 | 49 | 24 | 84 | 37 | 138 |
| On visit or elopement, June 30, 1959..... | 577 | 502 | 1 | 412 | 60 | 2 | 27 | 0 | 75 | 0 | 0 | 0 | 1 | 0 | 0 | 30 | 9 | 3 | 0 | 0 | 1 | 20 | 8 | 0 | 1 | 0 | 2 |

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

PUBLISHED WEEKLY

CHICAGO, ILL., U.S.A.

VOLUME 10, NUMBER 1, JANUARY 1917

Subscription price, \$5.00 per annum in advance

Single copies, 15 cents

Entered as second-class matter, May 26, 1911

Postpaid

Acceptance for mailing at special rate of postage provided for in Act of October 3, 1917

Authorizes sale at wholesale and retail prices

Copyright, 1917, by American Medical Association

Printed at the American Medical Association, 535 North Dearborn Street, Chicago, Ill.

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American Printing House for the Blind

AS THE OFFICIAL schoolbook printery for the blind in the United States, one of the principal functions of the American Printing House for the Blind, in Louisville, Ky., is the provision of special educational books and supplies for the blind schoolchildren throughout the country through the Federal Act "To Promote the Education of the Blind." This act, originally passed in 1879, authorizes an annual appropriation to the Printing House for this purpose. Allocations of books and materials are made on a per capita basis. Only those pupils may be registered whose vision comes within the accepted definition of blindness as follows: "Central visual acuity of 20/200 or less in the better eye with correcting glasses, or a peripheral field so contracted that the widest diameter of such field subtends an angular distance no greater than 20 degrees."

The Printing House maintains large catalogs of Braille books, Talking Books, recorded tapes, Braille music publications, large-type texts, and tangible apparatus. A rich collection of educational material is thereby provided for the kindergarten through the high school grades. A total of 6,656 blind pupils was enrolled in the residential schools for the blind and 6,835 in public schools—a total of 13,491 blind pupils being served by the Printing House—for the fiscal year ending June 30, 1959.

During the 1959 fiscal year, Braille books, educational periodicals, and music made up approximately 48 percent of the materials required by the schools; Braille slates, Braillewriters, maps, and other mechanical devices about 19 percent; Talking Books about 5 percent; recorded educational tapes about 1.5 percent; and large-type books about 24.5 percent. Approximately 2 percent was used for miscellaneous items.

Gallaudet College

GALLAUDET COLLEGE is devoted to the education of deaf persons who because of their handicap would have difficulty in schools and colleges for hearing students. The college, located in Washington, D.C., is the world's only college for the deaf. It was accredited in May 1957 by the Middle States Association of Colleges and Secondary Schools. In addition to education, it conducts research into the educational problems of deafness. It consists of the Kendall School and the college proper.

KENDALL SCHOOL

Primary and secondary schooling is provided for deaf children in the Kendall School, which also serves as a laboratory school for teachers training in the college. The oral method of instruction is used for all pupils except those who make no progress under it. Enrollment last year was 77, of which 62 came from the District of Columbia. In the fall of 1959, a nursery school was established also and is under the direction of and a part of our Hearing and Speech Center.

GALLAUDET COLLEGE

The college, established in 1864 by act of Congress, offers the associate's degree after 2 years of study, and a bachelor's degree in the liberal arts and sciences. The Preparatory Department provides the senior year of high school for students who are unable to obtain it in the State schools for the deaf. The Graduate Department of Education offers a master's degree and a professional diploma in the education of the deaf to students with normal hearing, and offers a 4-week training course to vocational counselors who wish to acquire a deeper understanding of deaf persons. Total enrollment in the college last year was 358, with students from 45 States and 6 foreign countries. In addition, there were in attendance throughout a part of the school year 66 students enrolled in (a) summer school graduate courses, (b) courses in "orientation to the deaf" for vocational rehabilitation counselors, welfare workers, etc., and (c) extension classes.

Handbook of Statistics

| Volume | Editor(s) | Year | Pages | Price |
|--------|------------------|------|-------|---------|
| 1 | Edwards W. Bruce | 1973 | 1000 | \$12.50 |
| 2 | Edwards W. Bruce | 1974 | 1000 | \$12.50 |
| 3 | Edwards W. Bruce | 1975 | 1000 | \$12.50 |
| 4 | Edwards W. Bruce | 1976 | 1000 | \$12.50 |
| 5 | Edwards W. Bruce | 1977 | 1000 | \$12.50 |
| 6 | Edwards W. Bruce | 1978 | 1000 | \$12.50 |
| 7 | Edwards W. Bruce | 1979 | 1000 | \$12.50 |
| 8 | Edwards W. Bruce | 1980 | 1000 | \$12.50 |
| 9 | Edwards W. Bruce | 1981 | 1000 | \$12.50 |
| 10 | Edwards W. Bruce | 1982 | 1000 | \$12.50 |
| 11 | Edwards W. Bruce | 1983 | 1000 | \$12.50 |
| 12 | Edwards W. Bruce | 1984 | 1000 | \$12.50 |
| 13 | Edwards W. Bruce | 1985 | 1000 | \$12.50 |
| 14 | Edwards W. Bruce | 1986 | 1000 | \$12.50 |
| 15 | Edwards W. Bruce | 1987 | 1000 | \$12.50 |
| 16 | Edwards W. Bruce | 1988 | 1000 | \$12.50 |
| 17 | Edwards W. Bruce | 1989 | 1000 | \$12.50 |
| 18 | Edwards W. Bruce | 1990 | 1000 | \$12.50 |
| 19 | Edwards W. Bruce | 1991 | 1000 | \$12.50 |
| 20 | Edwards W. Bruce | 1992 | 1000 | \$12.50 |
| 21 | Edwards W. Bruce | 1993 | 1000 | \$12.50 |
| 22 | Edwards W. Bruce | 1994 | 1000 | \$12.50 |
| 23 | Edwards W. Bruce | 1995 | 1000 | \$12.50 |
| 24 | Edwards W. Bruce | 1996 | 1000 | \$12.50 |
| 25 | Edwards W. Bruce | 1997 | 1000 | \$12.50 |
| 26 | Edwards W. Bruce | 1998 | 1000 | \$12.50 |
| 27 | Edwards W. Bruce | 1999 | 1000 | \$12.50 |
| 28 | Edwards W. Bruce | 2000 | 1000 | \$12.50 |
| 29 | Edwards W. Bruce | 2001 | 1000 | \$12.50 |
| 30 | Edwards W. Bruce | 2002 | 1000 | \$12.50 |
| 31 | Edwards W. Bruce | 2003 | 1000 | \$12.50 |
| 32 | Edwards W. Bruce | 2004 | 1000 | \$12.50 |
| 33 | Edwards W. Bruce | 2005 | 1000 | \$12.50 |
| 34 | Edwards W. Bruce | 2006 | 1000 | \$12.50 |
| 35 | Edwards W. Bruce | 2007 | 1000 | \$12.50 |
| 36 | Edwards W. Bruce | 2008 | 1000 | \$12.50 |
| 37 | Edwards W. Bruce | 2009 | 1000 | \$12.50 |
| 38 | Edwards W. Bruce | 2010 | 1000 | \$12.50 |
| 39 | Edwards W. Bruce | 2011 | 1000 | \$12.50 |
| 40 | Edwards W. Bruce | 2012 | 1000 | \$12.50 |
| 41 | Edwards W. Bruce | 2013 | 1000 | \$12.50 |
| 42 | Edwards W. Bruce | 2014 | 1000 | \$12.50 |
| 43 | Edwards W. Bruce | 2015 | 1000 | \$12.50 |
| 44 | Edwards W. Bruce | 2016 | 1000 | \$12.50 |
| 45 | Edwards W. Bruce | 2017 | 1000 | \$12.50 |
| 46 | Edwards W. Bruce | 2018 | 1000 | \$12.50 |
| 47 | Edwards W. Bruce | 2019 | 1000 | \$12.50 |
| 48 | Edwards W. Bruce | 2020 | 1000 | \$12.50 |
| 49 | Edwards W. Bruce | 2021 | 1000 | \$12.50 |
| 50 | Edwards W. Bruce | 2022 | 1000 | \$12.50 |

Howard University

HOWARD UNIVERSITY, located in the District of Columbia, was chartered by act of Congress on March 2, 1867. The university offers programs of higher education on the undergraduate, graduate, and professional levels. Undergraduate students are registered in the college of liberal arts; graduate students seeking the master's and doctor of philosophy degrees are registered in the graduate school; professional students are registered in the colleges of medicine, dentistry, pharmacy, and the schools of engineering and architecture, music, social work, law, and religion. (The school of religion receives no support from Federal funds.)

The educational program of Howard University is conducted in keeping with the democratic purposes of the land-grant colleges and State universities with the low tuition fees and living costs which characterize these State institutions and with an educational program resting upon and permeated by the content and spirit of a general or liberal education. The university admits students of both sexes, from every race, creed, and national origin, but it accepts and undertakes to discharge a special responsibility for the admission and training of Negro students.

ENROLLMENT OF STUDENTS

During the school year 1958-59, the university served a total of 6,661 students as follows: 5,130 during the regular academic year and 1,531 in the summer session of 1958. The net total enrollment, excluding all duplicates, was 5,959, distributed in the 10 schools and colleges as follows: liberal arts, 2,861; graduate school, 585; engineering and architecture, 862; music, 292; social work, 123; dentistry, 587; medicine, 336; pharmacy, 147; law, 104; and religion, 62. This enrollment included a larger body of Negro professional students than in all universities of public support in all the Southern States combined.

GEOGRAPHICAL DISTRIBUTION OF STUDENTS

Of a total of 5,501 students seeking degrees, 4,778, or 87 percent, came from 43 States and the District of Columbia, while 723 students, or 13 percent, came from outside the continental United States including 2 possessions of the United States, 50 foreign countries, and 15 island possessions of the British, French, and Dutch West Indies.

The 4,778 students from the United States were distributed as follows: New England States, 83; Middle Atlantic States, 753; East North Central States, 237; West North Central States, 85; South Atlantic States, 2,967; East South Central States, 343; West South Central States, 268; Mountain States, 10; and Pacific States, 32.

The 723 students from outside the continental United States came from 50 foreign countries, including Canada, 2 countries in the West Indies, 4 countries in Central America, 5 countries in South America, 11 countries in Europe, 11 countries in Africa, 15 countries in Asia, and 15 island possessions of the British, French, and Dutch West Indies.

VETERANS

There were 783 veterans enrolled at Howard University during the school year 1958-59. They were distributed among the 10 schools and colleges as follows: 347 in liberal arts, 47 in the graduate school, 6 in music, 173 in engineering and architecture, 25 in pharmacy, 66 in medicine, 72 in dentistry, 9 in social work, 32 in law, and 6 in religion.

ARMY AND AIR FORCE ROTC

Army ROTC.—Four hundred and eleven students were enrolled in Army ROTC during the school year 1958-59. Of this number, 185 were in the first-year course, 134 were in the second year, 39 were in the third year, and 53 were in the fourth year. During the year, 44 students were commissioned as reserve officers in the Army.

Air Force ROTC.—There were 331 students enrolled in Air Force ROTC. Of this number, 186 were in the first-year course, 113 were in the second-year course, 21 were in the third, and 11 were in the fourth year. Five students received commissions as reserve officers in the Air Force.

THE FACULTY

During the year 1958-59, a total of 593 teachers served the university. Of this number, there were 349 full-time teachers and 244 part-time teachers. The full-time equivalent of the teaching staff was 403.36. Of this number, 375.54 were teaching in the rank of instructor and above.

From the beginning of the university's work in 1867, the founders invited to the faculty of the university learned and able men and women on the basis of their ability and character as individuals and without discrimination as to sex, race, creed, color, or national origin. It was a major purpose of the founders to employ Negro teachers,

among others, on every faculty. Today the Negro members of the professional faculties of Howard University constitute together a group of professional teachers larger by far than all the Negroes so employed in all other American universities combined. The existence of this group of Negro university teachers at Howard University has been a standing inspiration to the Negro people for more than three-quarters of a century, and membership on one of these faculties has been the first employment of many of the outstanding Negroes in the public life of America. From them came the founder and operator of the first blood plasma bank in the world, the first Negro Governor of an American possession, the first Negro in the Secretariat of the United Nations (Nobel Prize winner), the first Negro member of the bench of the U.S. Court of Appeals, and the first Negro cultural attaché in the diplomatic service of the United States to a major European nation.

THE BUILDING PROGRAM

In September 1958, a new men's dormitory, accommodating 304 students, was put into operation. Construction was continued on the new auditorium-fine arts building, scheduled to be put into operation in September 1960. This structure is designed to provide an auditorium for 1,500 persons, a laboratory little theater, with a capacity of 320 persons, and complete classrooms and other facilities for the entire school of music and for the departments of fine arts and the drama.

Plans were in the process of preparation for the construction of a home economics building and a building to house the program of physical education for men, looking toward the erection of these two buildings in 1961.

GRADUATES

During the school year 1958-59, there were 636 graduates from the 10 schools and colleges. These graduates came from 30 States, the District of Columbia, the Virgin Islands, Puerto Rico, and the following foreign countries: Ethiopia, Liberia, Nigeria, Iran, Barbados, Bermuda, Grenada, Jamaica, Trinidad, and British Guiana.

These 636 graduates were distributed among the 10 schools and colleges as follows: liberal arts, 251; engineering and architecture, 77; music, 23; the graduate school, 66; social work, 41; medicine, 75; dentistry, 42; dental hygiene, 8; pharmacy, 10; law, 28; and religion, 15. Three of these graduates were persons receiving the degree of doctor of philosophy in chemistry. Four honorary degrees were also conferred.

Since its establishment in 1867, Howard University has graduated 21,090 persons. By far the large majority of these graduates have been Negroes. Among their number is a larger body of graduates in medicine, dentistry, pharmacy, engineering, music, law, and social

work than the entire output of Negro professional graduates in all universities and colleges of public support in the entire group of Southern States. These graduates are at work in 44 States and 27 foreign countries. In every population center in the United States, they constitute the largest and most diversified group of trained Negro public servants related to any single institution in the world.

The largest number of graduates have entered the field of teaching, primarily in the Southern States. Three thousand and fifteen have entered the practice of medicine; 2,470 have entered the practice of dentistry and dental hygiene; 2,383 have entered the field of law; 792 have entered the ministry; 858 have entered the field of pharmacy; 723 have gone into engineering and architecture; and 431 have entered the field of social work.

SERVICE IN FOREIGN COUNTRIES

In recent years teachers and students from Howard University have served in Burma, Brazil, Ceylon, Egypt, Ethiopia, Germany, India, Israel, Iraq, Italy, Kenya, Liberia, British Guiana, the Sudan, Japan, and Vietnam. Fulbright scholars from the university have worked in Egypt, Ghana, Iraq, Japan, Norway, Sweden, Denmark, Italy, France, Greece, England, and India.

The responsible leaders in Government and the friends of America again and again have acknowledged their services as being of the greatest value to their country and to the cause of democracy in the world.

Among recent testimony from the Government is a letter from the Chief, Education and Training Branch, Division of International Health of the Department of Health, Education, and Welfare regarding a consultant tour made at the request of the U.S. Mission, by the dean of the College of Medicine: ". . . I am pleased to tell you that the United States and Vietnamese officials found Dr. Jason the thoughtful, scholarly educator that both you and I know him to be and that he did a wonderful job in our common interest. We appreciate very much your willingness to permit him to be absent from his desk for such a long time and wish only that there were more Americans who could represent us so well abroad."

The Director of the International Exchange Service writes as follows, regarding the service of a member of the faculty as a visiting professor of dentistry at the University of Ceylon: "Wherever he went, Dr. Griffiths was an excellent interpreter of American life to his audiences and was admired for his personal attributes as well as his professional competence. The Department of State deeply appreciates the cooperation of Howard University in making it possible for Dr. Griffiths thus to serve under its International Educational Exchange Program."

Detailed Contents

SOCIAL SECURITY ADMINISTRATION

| | Page |
|--|------|
| SOCIAL SECURITY IN 1959..... | 1 |
| INTERNATIONAL ACTIVITIES..... | 5 |
| OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE..... | 7 |
| WHAT THE PROGRAM IS DOING..... | 8 |
| ADMINISTERING THE PROGRAM..... | 12 |
| LEGISLATIVE DEVELOPMENTS DURING THE YEAR..... | 17 |
| Hearings on Hospitalization Insurance for Old-Age, Survivors, and Disability Insurance Beneficiaries..... | 17 |
| Railroad Retirement Legislation..... | 18 |
| THE ADVISORY COUNCIL ON SOCIAL SECURITY FINANCING..... | 18 |
| SPECIAL STUDIES REQUESTED BY THE CONGRESS..... | 20 |
| SURVEYS OF RESOURCES OF OLD-AGE, SURVIVORS, AND DISABILITY IN- SURANCE BENEFICIARIES..... | 20 |
| PROGRAM SIMPLIFICATION PROJECT..... | 21 |
| FINANCING THE PROGRAM..... | 21 |
| PUBLIC ASSISTANCE..... | 22 |
| TRENDS IN CASELOADS AND EXPENDITURES..... | 23 |
| PROGRAM AND ADMINISTRATIVE DEVELOPMENTS..... | 27 |
| RELATED SOCIAL WELFARE ACTIVITIES..... | 35 |
| CHILDREN'S BUREAU..... | 37 |
| SOME FACTS AND FIGURES ABOUT PARENTS AND CHILDREN..... | 37 |
| MAJOR BUREAU TRENDS..... | 38 |
| 1960 WHITE HOUSE CONFERENCE ON CHILDREN AND YOUTH..... | 39 |
| FEDERAL INTERDEPARTMENTAL COMMITTEE ON CHILDREN AND YOUTH.. | 40 |
| PROGRAMS OF THE BUREAU..... | 41 |
| Research in Child Life..... | 41 |
| Maternal and Child Health Services..... | 42 |
| Crippled Children's Services..... | 44 |
| Child Welfare Services..... | 46 |
| Juvenile Delinquency Service..... | 50 |
| International Cooperation..... | 52 |
| Information for Parents and Those Working With Children..... | 54 |
| FEDERAL CREDIT UNIONS..... | 55 |
| TABLE 1.—Social Security Administration: Funds available and obligations incurred, fiscal years 1959 and 1958..... | 57 |
| TABLE 2.—Financing social insurance under the Social Security Act: Contributions collected and trust fund operations, fiscal years 1957-59.. | 58 |
| TABLE 3.—Old-age, survivors, and disability insurance: Estimated number of families and beneficiaries receiving benefits and average monthly benefit in current-payment status, by family group, end of June 1959 and 1958..... | 59 |

| | |
|---|------------|
| TABLE 4.—Old-age, survivors, and disability insurance: Number and amount of monthly benefits in current-payment status at end of June 1959 and amount of benefit payments in fiscal year 1959, by State..... | Page 60 |
| TABLE 5.—Old-age, survivors, and disability insurance: Selected data on employers, taxable earnings, and contributions, by State, for specified periods..... | 62 |
| TABLE 6.—Old-age, survivors, and disability insurance: Selected data on benefits, employers, workers, and taxable earnings for specified periods, 1957-59..... | 63 |
| TABLE 7.—Special types of public assistance under plans approved by the Social Security Administration: Number of recipients and average payment, June 1959, and total payments to recipients, by program and State, fiscal year 1959..... | 64 |
| TABLE 8.—Special types of public assistance under plans approved by the Social Security Administration: Federal grants to States and total expenditures and percent from Federal funds, by program and State, fiscal year 1959..... | 66 |
| TABLE 9.—Maternal and child health and welfare services: Grants to States for maternal and child health services, services for crippled children, and child welfare services under the Social Security Act, by program and State, fiscal year 1959..... | 68 |
| TABLE 10.—Federal credit unions: Number of members, amount of assets, amount of shares, and amount of loans outstanding, Dec. 31, 1935-58.. | 69 |
| TABLE 11.—Federal credit unions: Assets and liabilities, Dec. 31, 1958, and Dec. 31, 1957..... | 69 |

PUBLIC HEALTH SERVICE

| | |
|--|----|
| HEALTH OF THE NATION..... | 71 |
| Health Record..... | 71 |
| Births, Marriages, and Divorces..... | 72 |
| Influenza and Poliomyelitis..... | 73 |
| FUNDS AND PERSONNEL..... | 73 |
| NATIONAL LIBRARY OF MEDICINE..... | 74 |
| Indexing Services..... | 74 |
| Publications Program..... | 74 |
| Program Statistics..... | 74 |
| PUBLIC HEALTH METHODS..... | 75 |
| National Health Survey..... | 75 |
| Studies of Health Resources..... | 76 |
| THE NATIONAL INSTITUTES OF HEALTH..... | 77 |
| CLINICAL CENTER..... | 78 |
| DIVISION OF BIOLOGICS STANDARDS..... | 78 |
| DIVISION OF GENERAL MEDICAL SCIENCES..... | 79 |
| Center for Aging Research..... | 80 |
| DIVISION OF RESEARCH GRANTS..... | 81 |
| CENTRAL SERVICES..... | 81 |
| INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES..... | 82 |
| Grant-Supported Research..... | 83 |
| INSTITUTE OF ARTHRITIS AND METABOLIC DISEASES..... | 83 |
| CANCER INSTITUTE..... | 85 |

| | Page |
|---|------|
| Institute Research..... | 86 |
| Grant-Supported Research..... | 87 |
| INSTITUTE OF DENTAL RESEARCH..... | 88 |
| HEART INSTITUTE..... | 89 |
| Grant-Supported Research..... | 91 |
| INSTITUTE OF MENTAL HEALTH..... | 92 |
| Basic Research..... | 92 |
| Clinical Investigations..... | 93 |
| Community Services..... | 93 |
| Training..... | 93 |
| Biometrics..... | 94 |
| INSTITUTE OF NEUROLOGICAL DISEASES AND BLINDNESS..... | 94 |
| Grant-Supported Research..... | 95 |
| BUREAU OF MEDICAL SERVICES..... | 96 |
| HOSPITALS AND OUTPATIENT FACILITIES..... | 96 |
| Volume of Services..... | 97 |
| Medicare..... | 98 |
| Training Medical Care Personnel..... | 98 |
| Clinical Investigations..... | 99 |
| Federal Employee Health Program..... | 99 |
| Freedmen's Hospital..... | 100 |
| FOREIGN QUARANTINE..... | 100 |
| Volume of International Traffic..... | 101 |
| Medical Examinations..... | 102 |
| Other Quarantine Activities..... | 103 |
| HEALTH SERVICES FOR INDIANS..... | 103 |
| New and Improved Health Facilities..... | 104 |
| Trends in the Program..... | 105 |
| Health Problems of the Indians..... | 105 |
| Services Provided..... | 106 |
| Environmental Sanitation..... | 107 |
| HOSPITAL AND MEDICAL FACILITIES..... | 107 |
| Changing Needs and Emphases..... | 108 |
| Research—Hospital Administration..... | 108 |
| Scope of Operations..... | 109 |
| DENTAL RESOURCES..... | 110 |
| Manpower Studies Aid School Planning..... | 110 |
| New Approaches to the Purchase of Dental Care..... | 111 |
| Technical Research..... | 112 |
| NURSING RESOURCES..... | 112 |
| Applied Research..... | 112 |
| Basic Research..... | 113 |
| Support of Extramural Research..... | 114 |
| Stimulation of Nursing Education..... | 114 |
| MEDICAL SERVICES FOR FEDERAL AGENCIES..... | 115 |
| United States Coast Guard, Treasury Department..... | 115 |
| Maritime Administration, Department of Commerce..... | 115 |
| Bureau of Prisons, Department of Justice..... | 116 |
| Bureau of Employees' Compensation, Department of Labor..... | 117 |
| BUREAU OF STATE SERVICES..... | 117 |
| GENERAL HEALTH SERVICES..... | 117 |

| | Page |
|--|------|
| State Grants..... | 118 |
| Arctic Health Research Center..... | 118 |
| National Office of Vital Statistics..... | 119 |
| Program Development..... | 119 |
| Training..... | 120 |
| Public Health Education..... | 120 |
| PUBLIC HEALTH NURSING..... | 120 |
| SPECIAL HEALTH SERVICES..... | 121 |
| Cancer Control..... | 121 |
| Heart Disease Control..... | 121 |
| Chronic Disease Control..... | 122 |
| Tuberculosis Control..... | 122 |
| Occupational Health..... | 123 |
| Air Pollution Medical Program..... | 124 |
| Accident Prevention..... | 125 |
| RADIOLOGICAL HEALTH..... | 125 |
| ENGINEERING SERVICES..... | 127 |
| Robert A. Taft Sanitary Engineering Center..... | 127 |
| Engineering Resources..... | 127 |
| General Engineering..... | 127 |
| Milk and Food Sanitation..... | 128 |
| Air Pollution Engineering Program..... | 128 |
| WATER SUPPLY AND POLLUTION CONTROL..... | 129 |
| COMMUNICABLE DISEASE CENTER..... | 130 |
| Representative Field and Laboratory Studies..... | 131 |
| Vector Control..... | 133 |
| Laboratory Services and New Techniques..... | 133 |
| Training..... | 134 |
| DENTAL PUBLIC HEALTH..... | 134 |
| INTERNATIONAL HEALTH..... | 134 |

| | |
|---|-----|
| TABLE 1.—Statement of appropriations, authorizations, and obligations, fiscal year 1959..... | 136 |
| TABLE 2.—Commissioned officers and civil service personnel as of June 30, 1959..... | 138 |
| TABLE 3.—Research grants and awards, fiscal year 1959..... | 139 |
| TABLE 4.—Payments to States, fiscal year 1959..... | 140 |

OFFICE OF EDUCATION

| | |
|---|-----|
| INTRODUCTION..... | 143 |
| National Defense Education Act Fills a Critical Need..... | 144 |
| Continuing Office Activities..... | 145 |
| THE NATIONAL DEFENSE EDUCATION ACT OF 1958..... | 146 |
| Organization and Planning..... | 146 |
| National Defense Education Act in Fiscal 1959..... | 148 |
| STATISTICS AND RESEARCH..... | 154 |
| Educational Statistics..... | 154 |
| Libraries and Library Services..... | 155 |
| Library Services to Rural Areas..... | 155 |
| Public Libraries..... | 156 |
| School Libraries..... | 157 |
| College and University Libraries..... | 157 |

| | Page |
|--|------|
| Cooperative Research Program..... | 157 |
| Educational Media..... | 159 |
| STATE AND LOCAL SCHOOL SYSTEMS..... | 160 |
| Teacher Shortage..... | 160 |
| Financing Educational Services..... | 162 |
| School Housing..... | 164 |
| State School Administration..... | 166 |
| Local School Systems..... | 167 |
| Elementary Education..... | 168 |
| Studies and Research..... | 169 |
| Secondary Education..... | 170 |
| Adult Education..... | 174 |
| Exceptional Children..... | 175 |
| Civil Defense Education Program..... | 177 |
| SCHOOL ASSISTANCE IN FEDERALLY AFFECTED AREAS..... | 177 |
| Legislation..... | 179 |
| HIGHER EDUCATION..... | 179 |
| Studies and Surveys..... | 180 |
| Land-Grant Colleges..... | 182 |
| VOCATIONAL EDUCATION..... | 182 |
| Agricultural Education..... | 182 |
| Distributive Education..... | 183 |
| Trade and Industrial Education..... | 184 |
| Practical Nursing..... | 185 |
| Home Economics..... | 185 |
| INTERNATIONAL EDUCATION..... | 186 |
| Comparative Studies..... | 187 |
| Evaluation of Educational Credentials..... | 188 |
| Educational Materials Laboratory..... | 188 |
| International Bureau of Education..... | 188 |
| International Educational Exchange..... | 189 |
| Teacher Development Program..... | 189 |
| Teacher Exchange Program..... | 190 |
| Education Missions..... | 190 |

| | |
|--|-----|
| TABLE 1.—Enrollment in the continental United States, 1957-58 and 1958-59..... | 191 |
|--|-----|

| | |
|--|-----|
| TABLE 2.—Supply and demand for elementary and secondary public and nonpublic school teachers, 1958-59..... | 191 |
|--|-----|

| | |
|--|-----|
| TABLE 3.—Grants to States, Office of Education for fiscal year 1959..... | 192 |
|--|-----|

FOOD AND DRUG ADMINISTRATION

| | |
|---|-----|
| FOOD, DRUG, AND COSMETIC ACT..... | 196 |
| On the Food Front..... | 196 |
| Potential Health Hazards..... | 196 |
| To Keep Food Clean..... | 199 |
| Pocketbook Protection..... | 202 |
| Products of Special Dietary Significance..... | 203 |
| Drugs and Devices..... | 204 |
| Illegal Sales of Prescription Drugs..... | 204 |
| Adulterated and Misbranded Drugs and Devices..... | 205 |
| New Drugs..... | 207 |

| | Page |
|---|------|
| Cosmetics and Colors..... | 208 |
| Certification Services..... | 208 |
| ENFORCEMENT OF OTHER ACTS..... | 208 |
| NEW COURT INTERPRETATIONS..... | 209 |
| CHANGES IN THE LAW AND REGULATIONS..... | 210 |
| Regulations..... | 210 |
| SCIENTIFIC INVESTIGATIONS..... | 213 |
| ENFORCEMENT STATISTICS..... | 215 |
| TABLE 1.—Actions on foods during the fiscal year 1959..... | 200 |
| TABLE 2.—Number of samples on which criminal prosecutions and seizures were based and number of court actions instituted during the fiscal year 1959..... | 216 |
| TABLE 3.—Import samples collected, examinations made, and lots detained during the fiscal year 1959..... | 216 |

OFFICE OF VOCATIONAL REHABILITATION

| | |
|---|-----|
| PROGRESS IN 1959 POINTS UP PROPORTIONS PROGRAM HAS REACHED IN 5 YEARS UNDER PUBLIC LAW 565..... | 217 |
| Rehabilitations in 1959..... | 217 |
| Economic Value of the Program..... | 218 |
| NEW LAW MARKED A TURNING POINT IN REHABILITATION..... | 220 |
| RESEARCH AND DEMONSTRATION PROJECTS CONTINUE TO BROADEN BASE FOR REHABILITATION PROGRAM'S FUTURE..... | 220 |
| Projects Increase Sharply..... | 221 |
| Projects in a Wide Range..... | 221 |
| Projects for the Aging..... | 222 |
| Surgical Relief for Nervous Disorders..... | 222 |
| Advances in Prosthetics..... | 223 |
| Agricultural Projects..... | 223 |
| Projects in Mental Health..... | 223 |
| Epileptics at Work..... | 224 |
| Selected Demonstrations..... | 224 |
| Rehabilitation Research Fellowship Program..... | 224 |
| STATE-FEDERAL RELATIONSHIPS UNDER NEW LAW PROVIDE INCENTIVES FOR EXPANSION OF SERVICES TO DISABLED..... | 224 |
| Expansion of Staffs and Services..... | 225 |
| State Plans..... | 225 |
| State Program Development..... | 226 |
| More State and Community Facilities..... | 226 |
| Expansion Grants..... | 226 |
| Extension and Improvement Grants..... | 227 |
| State-Federal Expenditures for Facilities and Workshops..... | 227 |
| Aid Under Hospital Construction Legislation..... | 228 |
| Professional Organizations Among Centers..... | 228 |
| Demand for Special Facilities..... | 228 |
| TRAINING OF QUALIFIED PERSONNEL FOR ALL PHASES OF PROGRAM IS EXPANDED IN NUMBERS AND OBJECTIVES..... | 229 |
| Medical Students Indoctrinated..... | 230 |
| Training in Prosthetics..... | 231 |
| TOTAL OF FEDERAL GRANTS..... | 231 |

| | |
|---|------|
| REHABILITATION OF THE AGING IS AIDED BY RESEARCH AND NEW SERVICES | Page |
| AS PROPORTION IN POPULATION INCREASES..... | 231 |
| States Emphasize Programs for Aging..... | 232 |
| Rehabilitation and OASI..... | 232 |
| Conference on Aging..... | 233 |
| Mental Illness..... | 233 |
| Mentally Retarded..... | 234 |
| Many Phases of Retardation Examined..... | 234 |
| SERVICES TO THE BLIND..... | 234 |
| Vending Stands..... | 235 |
| SMALL BUSINESS..... | 235 |
| PROFESSIONAL ORGANIZATIONS..... | 236 |
| COOPERATION WITH OTHER PROGRAMS..... | 236 |
| INTERNATIONAL ACTIVITIES..... | 237 |
| TABLE 1.—Number of referrals and cases, by agency, fiscal year 1959..... | 238 |
| TABLE 2.—Vocational rehabilitation grants, 1959, State divisions of vocational rehabilitation..... | 240 |
| TABLE 3.—Vocational rehabilitation grants, 1959, State commissions or agencies for the blind..... | 241 |
| CHART 1.—Disabilities and major occupational groups..... | 219 |

SAINT ELIZABETHS HOSPITAL

| | |
|--|-----|
| DIVISION OF CLINICAL SERVICES..... | 245 |
| Clinical Branches..... | 245 |
| Medical and Surgical Branch..... | 246 |
| Nursing Branch..... | 246 |
| Psychotherapy Branch..... | 246 |
| Psychology Branch..... | 246 |
| Recreational Therapy Branch..... | 247 |
| Volunteer Services Branch..... | 247 |
| Occupational Therapy Branch..... | 247 |
| Social Service Branch..... | 247 |
| Chaplain Services Branch..... | 248 |
| Medical Records Branch..... | 248 |
| Library Services..... | 248 |
| Laboratory Branch..... | 249 |
| DIVISION OF ADMINISTRATION..... | 249 |
| NEEDS OF THE HOSPITAL..... | 249 |
| TABLE 1.—Movement of patient population, fiscal year 1959..... | 250 |
| TABLE 2.—Consolidated statement of movement of patients, by classifica- tion, fiscal year 1959..... | 251 |

AMERICAN PRINTING HOUSE FOR THE BLIND

| | |
|--|-----|
| Services to Schools and Classes for the Blind..... | 253 |
|--|-----|

GALLAUDET COLLEGE

| | Page |
|------------------------|------|
| Kendall School..... | 255 |
| Gallaudet College..... | 255 |

HOWARD UNIVERSITY

| | |
|--|-----|
| Enrollment of Students..... | 257 |
| Geographical Distribution of Students..... | 257 |
| Veterans..... | 258 |
| Army and Air Force ROTC..... | 258 |
| The Faculty..... | 258 |
| The Building Program..... | 259 |
| Graduates..... | 259 |
| Service in Foreign Countries..... | 260 |



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